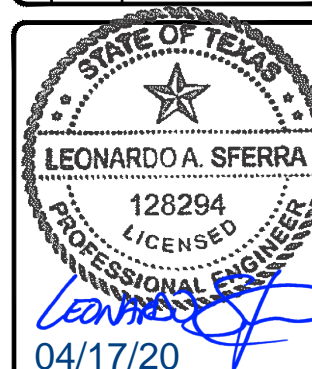


520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation		
Texas Registration No. 16477		
F	04.17.20	SIGNED AND SEALED
F	03.31.20	SIGNED AND SEALED
E	07.25.19	SIGNED AND SEALED
D	03.08.19	ISSUED FOR 100% REVIEW
C	12.06.18	ISSUED FOR 100% REVIEW
B	10.31.18	ISSUED FOR 100% REVIEW
A	10.02.18	ISSUED FOR 50% REVIEW
REV	DATE	DESCRIPTION



IT IS A VIOLATION OF THE LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER, TO
ALTER THIS DOCUMENT

11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE

TITLE SHEET &
PROJECT DATA

SHEET NUMBER

T-1

SITE INFORMATION		APPLICABLE CODES		PROJECT DESCRIPTION	DRAWING INDEX	
<div><div><div><div><div>ADDRESS:</div><div>11410 CENTURY OAKS TERRACE (TESLA STATION) AUSTIN, TX 78758</div></div><div><div>POWER COMPANY:</div><div>AUSTIN ENERGY CONTACT: JON SANTOS (512) 505-7286</div></div><div><div>PROPERTY OWNER:</div><div>SIMON PROPERTY GROUP CONTACT: IRMA CASTOR (512) 873-8099</div></div><div><div>EQUIPMENT SUPPLIER:</div><div>TESLA, INC. 3500 DEER CREEK RD PALO ALTO, CA 94304 (650) 681-5000</div></div><div><div>GPD GROUP, PROFESSIONAL CORPORATION CONTACTS:</div><div>PROJECT MANAGER: ZACHERY SHEETS, PE - OH# 77870 (330)572-2148 ZSHEETS@GPDGROUP.COM</div><div>PROJECT COORDINATOR: TROY EVESLAGE, PE - IN# PE11500164 (317) 295-3179 TEVESLAGE@GPDGROUP.COM</div><div>UTILITY COORDINATOR: BRIAN GUTHRIDGE (330) 572-2249 BGUTHRIDGE@GPDGROUP.COM</div><div>PERMIT COORDINATOR: ZACHARY WHITNEY (206) 204-7397 ZWHITNEY@GPDGROUP.COM</div></div><div><div><div><div><div><div></div><div>1800 DIG TESS</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></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GENERAL CONSTRUCTION NOTES

1.

FOR THE PURPOSE CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
GENERAL CONTRACTOR: TBD
CONTRACTOR: TBD
OWNER: TESLA
2.

THE TOPOGRAPHIC SURVEY BY CLARK, DATED 09/07/2018 SHALL BE CONSIDERED A PART OF THESE PLANS. THE G.C. IS RESPONSIBLE FOR LOCATING IMPROVEMENTS PER THESE PLANS.
3.

THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLAN ARE BASED ON FIELD SURVEYS AND CITY RECORDS. DUE TO THE LIMITATIONS IN TECHNOLOGY AND GROUND CONDITIONS, NOT ALL UNDERGROUND UTILITIES ARE ABLE TO BE LOCATED. IF AN EXISTING UTILITY LINE IS DAMAGED DURING CONSTRUCTION, IT SHALL BE DETERMINED IF SAID UTILITY LINE WAS ABLE TO BE LOCATED WITH CURRENT TECHNOLOGY BEFORE THE UTILITY LOCATES WOULD TAKE RESPONSIBILITY. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
4.

ALL DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON A TOPOGRAPHIC SURVEY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION/PROJECT MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
5.

THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD DOCUMENTS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
6.

ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUES ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
7.

ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTION CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8.

UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATION ON THE DRAWINGS.
9.

PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
10.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
11.

IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
12.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
13.

THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
14.

CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
15.

WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEViate FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
16.

THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
17.

THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
18.

THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
19.

THE GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
20.

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
21.

THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
22.

THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A QT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.

23.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
24.

ONLY ITEMS SPECIFICALLY CALLED OUT TO BE REMOVED OR DEMOLISHED SHALL BE AFFECTED. ANY ITEMS INCLUDING, BUT NOT LIMITED TO, CURBS, PAVEMENT, UTILITY ITEMS, LANDSCAPING, ETC. SHALL REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE ANY AFFECTED ITEMS AT OWNERS DISCRETION.
25.

ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
26.

THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
27.

CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
28.

NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
29.

THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
30.

ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
31.

ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
32.

THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
33.

THE CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
34.





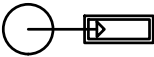
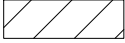

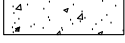

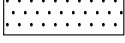

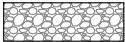
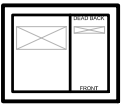

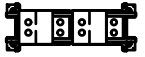








THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED FOR SERVICE EQUIPMENT). HANDICAP ACCESS MAY BE REQUIRED FOR CHARGING POSTS. SEE PLAN.
35.














NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
36.

CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37.

THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38.

INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

PROPOSED LEGEND			
	SIGN ON POST		CURB
	SIGN ON POST IN BOLLARD		CURB AND GUTTER
	LIGHT POLE		TRANSVERSE STRIPING
	METER		PROPOSED CONCRETE
	CHARGING POST		PROPOSED ASPHALT
	CHARGING CABINET		PROPOSED RIVER ROCK
	SERVICE ENTRANCE DISCONNECT		WATER MAIN
	AUTOTRANSFORMERS ON FRAME		WATER LINE
			IRRIGATION LINE
			GAS LINE
			STORM LINE
			SANITARY LINE
			ELECTRIC MAIN
			ELECTRIC LINE
			LIGHT POLE CONDUIT

EXISTING LEGEND			
	PROPERTY LINE		CATCH BASIN
	RIGHT OF WAY		CURB INLET
	CENTERLINE		STORM MANHOLE
	WATER MAIN		SANITARY MANHOLE
	WATER LINE		UNKNOWN MANHOLE
	IRRIGATION LINE		SANITARY VALVE
	GAS LINE		SEPTIC TANK
	STORM LINE		FIRE HYDRANT
	SANITARY LINE		WATER METER
	OVERHEAD ELECTRIC		WATER VALVE
	ELECTRIC MAIN		SPRINKLER HEAD
	ELECTRIC LINE		WATER MANHOLE
	LIGHT POLE CONDUIT		GAS VALVE
	EXISTING BUILDING		GAS METER
	LIGHT POLE		GAS MANHOLE
	POWER POLE		GAS SERVICE METER
	POWER/TELEPHONE POLE		TELEPHONE PEDESTAL
	LIGHT/TELEPHONE POLE		TELEPHONE MANHOLE
	TELEPHONE POLE		CABLE TV PEDESTAL
	POWER/LIGHT POLE		BOLLARD
	POWER/LIGHT/TELE POLE		SIGN
	UNKNOWN POLE		LUMINESCENT SIGN
	ELECTRIC METER		CLEANOUT
	ELECTRIC MANHOLE		YARD LIGHT
	TRANSFORMER		FLAG POLE
	ELECTRIC PULLBOX		GAS PUMP
			MAIL BOX

TRAFFIC CONTROL NOTES (AS REQUIRED)

1.

DURING THE CONSTRUCTION PERIOD; SIDEWALKS, SHOULDERS, TRAVEL LANE(S), OR STREETS MAY HAVE TO BE TEMPORARILY CLOSED OR RESTRICTED FOR THE UNLOADING / LOADING OF EQUIPMENT OR AS A RESULT OF CONSTRUCTION ACTIVITIES THEMSELVES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE LOCAL GOVERNING AUTHORITIES ON ANY SUCH CLOSURES AND MUST OBTAIN WRITTEN PERMISSION FROM THE APPROPRIATE AUTHORITIES PRIOR TO IMPLEMENTING SUCH CLOSURES OR RESTRICTIONS. ANY CLOSURE OR RESTRICTION MUST COMPLY WITH THE STATE MANUAL OF UNIFORM CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION AND REVISION), AND WITH ANY AND ALL ADDITIONAL APPLICABLE CITY, VILLAGE, OR COUNTY REQUIREMENTS. THE CONTRACTOR SHALL PREPARE AND SUBMIT A FORMAL TRAFFIC CONTROL / MOT PLAN TO THE LOCAL GOVERNING AUTHORITIES IF REQUESTED. ALL REQUIRED CONSTRUCTION TRAFFIC MAINTENANCE DEVICES SHALL BE PROVIDED, ERECTED AND MAINTAINED, AND ULTIMATELY REMOVED BY THE CONTRACTOR.
2.

THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES AND INTERSECTING STREET AT ALL TIMES DURING THE CONSTRUCTION OF THE IMPROVEMENTS ANTICIPATED. DRIVEWAYS MUST BE MAINTAINED AND ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. PER THE STATE MUTCD AND OTHER APPLICABLE APPROPRIATE GOVERNING REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, CONES, SIGNAGE, BARRELS, MESSAGE BOARDS, LIGHTING, FLAGMEN, LAW ENFORCEMENT OFFICERS, ETC. TO AVOID DAMAGE AND / OR INJURY TO VEHICLES AND PERSONS TRAVERSING THE CONSTRUCTION AREA.



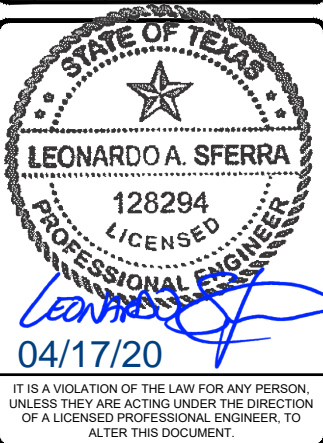
3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000



GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation
Texas Registration No. 16477

F	04.17.20	SIGNED AND SEALED
F	03.31.20	SIGNED AND SEALED
E	07.25.19	SIGNED AND SEALED
D	03.08.19	ISSUED FOR 100% REVIEW
C	12.06.18	ISSUED FOR 100% REVIEW
B	10.31.18	ISSUED FOR 100% REVIEW
A	10.02.18	ISSUED FOR 50% REVIEW
REV	DATE	DESCRIPTION



11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
GN-1

GOVERNING BUILDING CODE:

GOVERNING BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE WITH AMENDMENTS

DESIGN LOADINGS:

GRAVITY LOADS:		
FLOOR DEAD LOADS MECHANICAL SLABS	UNIFORM 125 PSF	CONCENTRATED 2000 LBS
FLOOR LIVE LOADS MECHANICAL SLABS	40 PSF	
SNOW LOADS:		
GROUND SNOW LOAD (P _g)	5 PSF	
LATERAL LOAD DESIGN DATA:		
WIND DESIGN DATA (ASCE 7-10):		
BASIC WIND SPEED (V _{ult})	115 MPH	
BASIC WIND SPEED (V _{ass})	89 MPH	
IMPORTANCE FACTOR	1.0	
EXPOSURE CATEGORY	C	
SEISMIC DESIGN DATA (ASCE 7-10):		
SEISMIC IMPORTANCE FACTOR (I)	1.0	
RISK CATEGORY	II	
SITE CLASS	D (ASSUMED)	
MAPPED SPECTRAL RESPONSE SHORT PERIODS (S _s)	0.063	
1 SEC. PERIODS (S ₁)	0.034	
SPECTRAL RESPONSE COEFF. SHORT PERIODS (S _{ps})	0.068	
1 SEC. PERIODS (S ₀₁)	0.054	
SEISMIC DESIGN CATEGORY	A	

GENERAL PROVISIONS:

TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE WORK EXCEPT WHERE SPECIFICALLY DETAILED OR UNLESS OTHERWISE NOTED.

DRAWINGS ARE NOT TO BE SCALED.

THE CONTRACTOR SHALL CAREFULLY REVIEW THE DRAWINGS TO IDENTIFY THE SCOPE OF WORK REQUIRED, VISIT THE SITE TO RELATE THE SCOPE OF WORK TO EXISTING CONDITIONS, AND DETERMINE THE EXTENT OF WHICH THOSE CONDITIONS AND PHYSICAL SURROUNDINGS WILL IMPACT THE WORK.

EXISTING CONDITIONS, AS SHOWN ON THESE PLANS, ARE FOR REFERENCE ONLY. THE CONTRACTOR IS REQUIRED TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL ASSUME THE MOST STRINGENT REQUIREMENTS APPLY IN CASE OF CONFLICT AMONG SPECIFICATIONS, STANDARDS, CODES AND DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY TO RESOLVE THE CONFLICT.

ANY DEVIATION, MODIFICATION, OR SUBSTITUTION FROM THE BID SET OF STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR REVIEW/APPROVAL PRIOR TO ITS USE OR INCLUSION ON THE SHOP DRAWINGS. WITHOUT SUCH PRIOR APPROVAL, DEVIATIONS, MODIFICATIONS, OR SUBSTITUTIONS WILL BE REJECTED. COSTS FOR DEMOLITION AND REWORK OF SUCH ITEMS WILL BE BORNE BY THE CONTRACTOR.

THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED FOR IN-SERVICE LOADS ONLY. THE MEANS, METHODS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, WHICH INCLUDE THE DETERMINATION OF ALLOWABLE CONSTRUCTION LOADING OF THE STRUCTURE. THE CONTRACTOR SHALL PROVIDE, DESIGN, MONITOR, AND MAINTAIN ALL NECESSARY TEMPORARY AND PERMANENT SYSTEMS (SHORING, BRACING, GUYS, FALSEWORK, FORMWORK, SHEETING, ETC.) TO ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION. ANY SYSTEMS SHOWN ON THE DOCUMENTS ARE PARTIAL AND SCHEMATIC IN NATURE AND EXTENTS ARE NOT ALL INCLUSIVE. ALL WORK SHALL BE PERFORMED WITHOUT DAMAGE TO ADJACENT EXISTING WORK.

THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL REVIEW THE STRUCTURAL CONTRACT DOCUMENTS AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY CONFLICTS BETWEEN THOSE DOCUMENTS AND ANY SAFETY REGULATIONS. SUCH REVIEW AND NOTIFICATION SHALL OCCUR PRIOR TO PRODUCTION OF SHOP DRAWINGS.

THE CONTRACTOR SHALL PROTECT ALL WORK, MATERIALS, AND EQUIPMENT FROM DAMAGE AND SHALL PROVIDE PROPER STORAGE FACILITIES FOR MATERIALS AND EQUIPMENT DURING CONSTRUCTION.

SITE VISITS PERFORMED BY THE ARCHITECT/ENGINEER DO NOT INCLUDE INSPECTIONS OF MEANS AND METHODS OF CONSTRUCTION PERFORMED BY THE CONTRACTOR.

STRUCTURAL OBSERVATIONS PERFORMED BY THE ARCHITECT/ENGINEER DURING CONSTRUCTION ARE NOT THE CONTINUOUS AND SPECIAL INSPECTION SERVICES AND DO NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING DEPARTMENT INSPECTOR OR THE TESTING AGENCY. ALSO, OBSERVATIONS DO NOT GUARANTEE THE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.

NO STRUCTURAL ELEMENTS ARE TO BE CUT UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.

FOUNDATION SYSTEMS:

GENERAL:

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL VERIFY ANY EXISTING FIELD CONDITION THAT MAY AFFECT THE INSTALLATION OF THE FOUNDATION SYSTEM.

THE CONTRACTOR SHALL EXERCISE GREAT CARE DURING EXCAVATION. UNDERGROUND UTILITY LOCATIONS, IF SHOWN, ARE APPROXIMATE. THE CONTRACTOR SHALL PREDETERMINE UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY IF DEVIATION FROM PLANS EXIST. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFE SUPPORT OF UTILITIES ACROSS EXCAVATIONS.

SHEETING, SHORING, AND DEWATERING IS THE RESPONSIBILITY OF THE CONTRACTOR.

NO GEOTECHNICAL REPORT WAS PROVIDED AT THE TIME OF FOUNDATION DESIGN. A SOILS TESTING LABORATORY SHALL BE RETAINED BY THE OWNER TO PROVIDE CONSTRUCTION REVIEW TO ENSURE CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS DURING THE EXCAVATIONS, BACKFILL, AND FOUNDATION PHASES OF THE PROJECT.

SPREAD/TRENCH FOOTINGS:

DETERMINATION OF FINAL BEARING ELEVATIONS, TOPSOIL AND EXCAVATION STRIPPING DEPTH, INSPECTION OF ALL SUBSOIL EXPOSED DURING STRIPPING, SITE GRADING, EXCAVATION OPERATIONS, APPROVAL OF FILL MATERIALS, DENSITY TESTING OF FILLS TO ENSURE PLACEMENT PER SPECIFICATION REQUIREMENTS, INSPECTION OF FOUNDATION BEARING SURFACES, AND VERIFICATION OF ALLOWABLE BEARING PRESSURES ARE THE TESTING LABORATORY'S RESPONSIBILITY.

ALL FOUNDATIONS ARE TO REST ON FIRM UNDISTURBED SOIL OR COMPACTED FILL FREE FROM ORGANIC MATTER. IF POOR SOIL CONDITIONS ARE ENCOUNTERED AT FOUNDATION DEPTHS SHOWN, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH CONSTRUCTION.

CONTRACTOR SHALL COMPACT SUBGRADE. SEE FROST/NO FROST DESIGN NOTES BELOW.

FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF.

NEW FOOTINGS PLACED ADJACENT TO EXISTING FOOTINGS SHALL BEAR AT THE SAME ELEVATION, UNLESS NOTED OTHERWISE.

STEP FOOTINGS AT A RATIO OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL WITH A MAXIMUM VERTICAL STEP OF 2'-0" UNLESS NOTED OTHERWISE.

INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES, WHICH WILL RESULT IN DETERIORATION OF BEARING FORMATIONS, SHALL BE PREVENTED. FOOTINGS SHALL BE PLACED IMMEDIATELY FOLLOWING FOOTING EXCAVATIONS AND BEARING SURFACE INSPECTION.

UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.

GROUNDWATER ASSUMED TO BE BELOW EXCAVATION DEPTH. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION ON SITE, CONTRACTOR SHALL PROVIDE FOR ANY SITE DRAINAGE AND DE-WATERING REQUIRED.

CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY, UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION INSTALLATION.

CHARGING CABINET PRE-FABRICATED ASSEMBLY FOUNDATION & ALL CHARGING POST FOUNDATIONS - FROST DESIGN NOTES (I.E. BOTTOM OF FOUNDATION ABOVE FROST LEVEL):

CONCRETE FOUNDATIONS SHOULD BEAR DIRECTLY ON A PROPERLY COMPACTED FREE-DRAINING GRANULAR FILL CONSISTING OF NO. 57 STONE OR AN APPROVED EQUIVALENT.

GRANULAR FILL SHOULD EXTEND VERTICALLY TO THE MINIMUM RECOMMENDED REGIONAL FROST DEPTH AND Laterally 2/3D FROM THE FOUNDATION PERIMETER (EXCLUDING SIDE OF PERIMETER ADJACENT TO CURB). GRANULAR FILL SHOULD BE PLACED IN 8 INCH LOOSE LIFTS AND COMPACTED WITH A VIBRATORY COMPACTOR. THE COMPACTION EQUIPMENT SHOULD BE OPERATED OVER THE FULL WIDTH OF THE FOUNDATION UNDERCUT AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES. SEE SHEET T-1 FOR LOCAL FROST DEPTH.

GEOTEXTILE (FILTER FABRIC) SHOULD BE PLACED BETWEEN THE GRANULAR BACKFILL AND COHESIVE SOILS TO PRECLUDE THE INFILTRATION OF FINES.

CHARGING CABINET PRE-FABRICATED ASSEMBLY FOUNDATION & ALL CHARGING POST FOUNDATIONS - NO FROST DESIGN NOTES (I.E. BOTTOM OF FOUNDATION BELOW FROST LEVEL):

CONCRETE FOUNDATIONS SHOULD BE SUPPORTED ON A 6 INCH COMPACTED LAYER OF APPROVED FREE-DRAINING GRANULAR MATERIAL.

APPROVED MATERIAL SHOULD BE COMPACTED OVER THE FULL WIDTH OF THE INFILL AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES.

SPECIAL INSPECTIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND OVERSEEING OF ALL SPECIAL INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. SPECIAL INSPECTIONS MUST BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

EXISTING SLAB REINFORCEMENT INVESTIGATION/X-RAY:

CONTRACTOR SHALL VERIFY POST TENSIONING AND REINFORCEMENT LOCATION IN EXISTING CONCRETE SLAB PRIOR TO DRILLING

CONCRETE:

GENERAL:

ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-10, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" AND ACI 302, 305 AND 306 UNLESS NOTED OTHERWISE.

ALL DETAILING, FABRICATION AND PLACING OF CONCRETE SHALL CONFORM TO ACI 318-14, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAIL REINFORCED CONCRETE STRUCTURES" UNLESS NOTED OTHERWISE.

SAFETY AND PERFORMANCE OF THE STRUCTURE ARE THE RESPONSIBILITY OF THE CONTRACTOR INSOFAR AS THEY ARE AFFECTED BY THE LOCATION AND DETAILS OF CONSTRUCTION JOINTS. SHOP DRAWINGS OF THE PROPOSED CONSTRUCTION JOINT LOCATIONS AND DETAILS ARE TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.

MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.

ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS:

ALL CONCRETE - 4000 PSI

ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 6% (± 1%) AIR ENTRAINMENT.

REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.

WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A1064 AND BE FURNISHED IN FLAT SHEETS AND INSTALLED ON CHAIRS OR PRECAST CONCRETE BLOCKS.

NO TACK WELDING OF REINFORCING IN THE FIELD IS PERMITTED.

PROVIDE CORNER BARS AT ALL LOCATIONS WHERE REINFORCEMENT CHANGES DIRECTION.

PROVIDE STRAIGHT AND DIAGONAL BARS AT EDGES OF ALL OPENINGS.

REINFORCING EMBEDMENT AND LAP SPLICES (INCHES) FOR 4000 PSI CONCRETE

BAR SIZE	ANCHORAGE	OTHER SPLICE	ANCHORAGE	TOP* SPLICE
# 3	15	19	19	24
# 4	19	25	25	33
# 5	24	31	31	41
# 6	29	37	37	49

* HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW BAR

NON-SHRINK GROUT SHALL MEET A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI.

STRUCTURAL STEEL

GENERAL:

MATERIAL PROPERTIES:

PLATE:	ASTM A36 UNO
PIPE:	ASTM A53, TYPE E OR S, GRADE B
TUBE:	ASTM A500 GRADE B (F _y = 46 KSI)

DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE 2010 AISC (360-10) SPECIFICATIONS.

ALL WELDING SHALL BE DONE USING E-70XX ELECTRODES IN ACCORDANCE WITH AWS D1.1 SPECIFICATIONS.

FIELD VERIFY ALL CONDITIONS AT AND CONNECTIONS TO THE EXISTING CONSTRUCTION BEFORE FABRICATION.

ALL EXPOSED STRUCTURAL STEEL, ANCHOR RODS AND BOLTS SHALL BE HOT DIP GALVANIZED PER ASTM A123.

UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554 WITH HEAVY HEXAGONAL NUT.

SUBMIT FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND TOP STEEL ELEVATIONS FOR APPROVAL. THE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE TO THE CONTRACT DRAWINGS. SUCH APPROVAL SHALL NOT RELIEVE THE FABRICATOR/CONTRACTOR OF THE RESPONSIBILITY FOR EITHER THE ACCURACY OF THE DETAILED DIMENSIONS IN THE SHOP AND ERECTION DRAWINGS OR THE GENERAL FIT-UP OF PARTS THAT ARE TO BE ASSEMBLED IN THE FIELD.

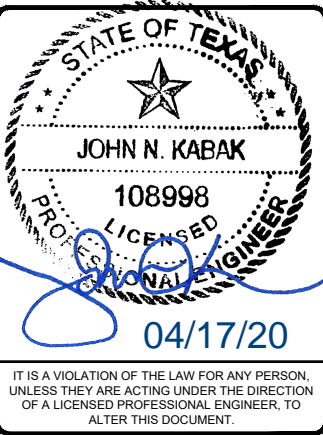


3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000



GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation		
Texas Registration No. 16477		
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REV	DATE	DESCRIPTION



11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

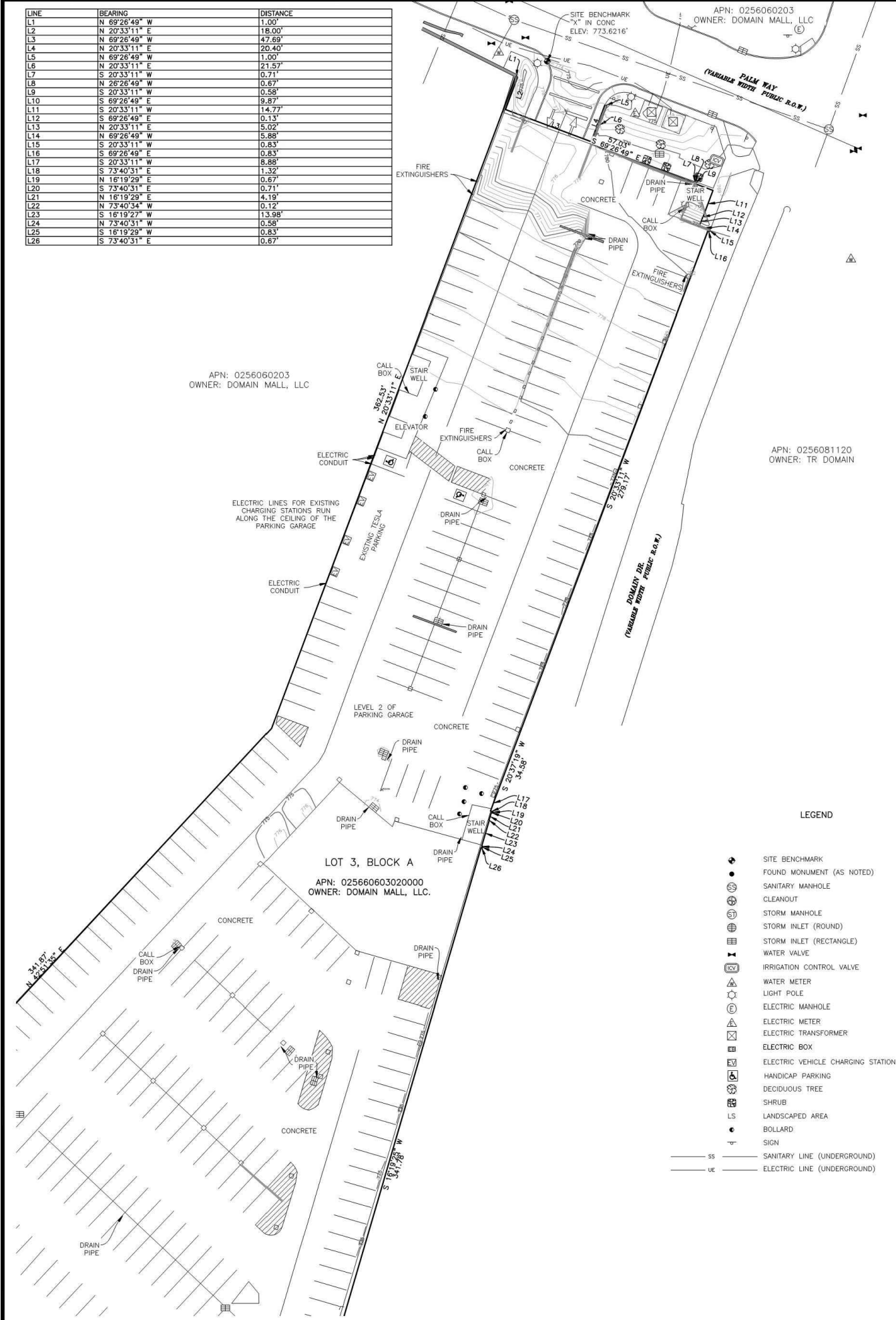
SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-3

LINE	BEARING	DISTANCE
L1	N 69°26'49" W	1.00'
L2	N 20°33'11" E	18.00'
L3	N 69°26'49" W	47.69'
L4	N 20°33'11" E	20.40'
L5	N 69°26'49" W	1.00'
L6	N 20°33'11" E	21.57'
L7	S 20°33'11" W	0.71'
L8	N 26°26'49" W	0.67'
L9	S 20°33'11" W	0.58'
L10	S 69°26'49" E	9.87'
L11	S 20°33'11" W	14.77'
L12	S 69°26'49" E	0.13'
L13	N 20°33'11" E	5.02'
L14	N 69°26'49" W	5.88'
L15	S 20°33'11" W	0.83'
L16	S 69°26'49" E	0.83'
L17	S 20°33'11" W	8.88'
L18	S 73°40'31" E	1.32'
L19	N 16°19'29" E	0.67'
L20	S 73°40'31" E	0.71'
L21	N 16°19'29" E	4.19'
L22	N 73°40'34" W	0.12'
L23	S 16°19'27" W	13.98'
L24	N 73°40'31" W	0.58'
L25	S 16°19'29" W	0.83'
L26	S 73°40'31" E	0.67'



PROPERTY DESCRIPTION:

3.247 Acre portion of lot 3 block A, domain section 2 subdivision, document number 200030333 of Travis county, Tx. official plat records.

SCHEDULE B2 EXCEPTIONS:

Item No.

- 1.) CONDOMINIUM DECLARATION 03/06/2006 DOCUMENT NO. 2006039179 - NOT PROVIDED
AMENDMENT 01/03/2008 DOC. NO. 200800767
AMENDMENT 03/14/2008 DOC. NO. 200840798 - NOT PROVIDED
-AFFECTS SURVEY AREA, BLANKET IN NATURE
- 2.) ALL MATTER SHOWN ON PLAT 03/06/2006 DOC. NO 2006038809
AMENDED 03/12/2008 DOC. NO. 2008039054
-AFFECTS SURVEY AREA, BLANKET IN NATURE

Items not listed above are determined non-survey related items and are not plotted hereon.

NOTES:

1. This is a topographic map. This is not a boundary survey and is only intended to depict those topographic features or improvements shown. The property lines shown are record lines only and are shown for graphical reference only.
2. Any underground utilities shown have been located from field survey information. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from the information available.
3. FEDERAL EMERGENCY MANAGEMENT AGENCY, Flood Insurance Rate Map, Map Number 48453C0265K effective date January 6, 2016, indicates this parcel of land is located in Zone X (Areas of 0.2% annual chance flood plain).
4. This survey does not constitute a title search by Clark Land Surveying, Inc. to determine ownership or easements of record. For all information regarding easements, rights of way and title of record, Clark Land Surveying, Inc. relied upon a Search Report, prepared by Hollerbach&Associates, Inc. with an order number of HA269044, dated 08/20/2018.
5. Elevations are based on NAVD 88 datum.
6. BENCHMARK: Chiseled "x" in concrete, as shown. Elevation: 773.6216' (NAVD 88).
7. BASIS OF BEARINGS: Bearings are relative to those shown upon the plat of the Domain Condominium, according to the map or plat thereof document number 200030333, recorded in of the Official Public Records of Travis County, Texas.
8. Field work for this survey was completed on August 30, 2018.
9. This site is zoned "MI-PDA" (Major Industrial Planned Development Area) per City of Austin, Tx. Planning Department. For building setbacks, refer to the Planned Development.
No zoning information provided by the client. Zoning setbacks shown hereon are the interpretation of the surveyor. For clarification of exact zoning designations and setback locations, please, contact the City of Austin Planning and Zoning Department at (512) 978-4000.

SURVEYOR'S STATEMENT:

On the basis of my knowledge, information and belief, I hereby state and declare that this drawing was prepared under my direct supervision to the standard of care of surveyors practicing in the State of Texas and that the information shown hereon is true and correct to the best of my knowledge and belief.

This statement is neither a warranty nor a guarantee, either expressed or implied.

R.L. McCrary



R.L. MCCRARY
Registered Professional Land Surveyor No. 5384
For and on behalf of Clark Land Surveying, Inc.

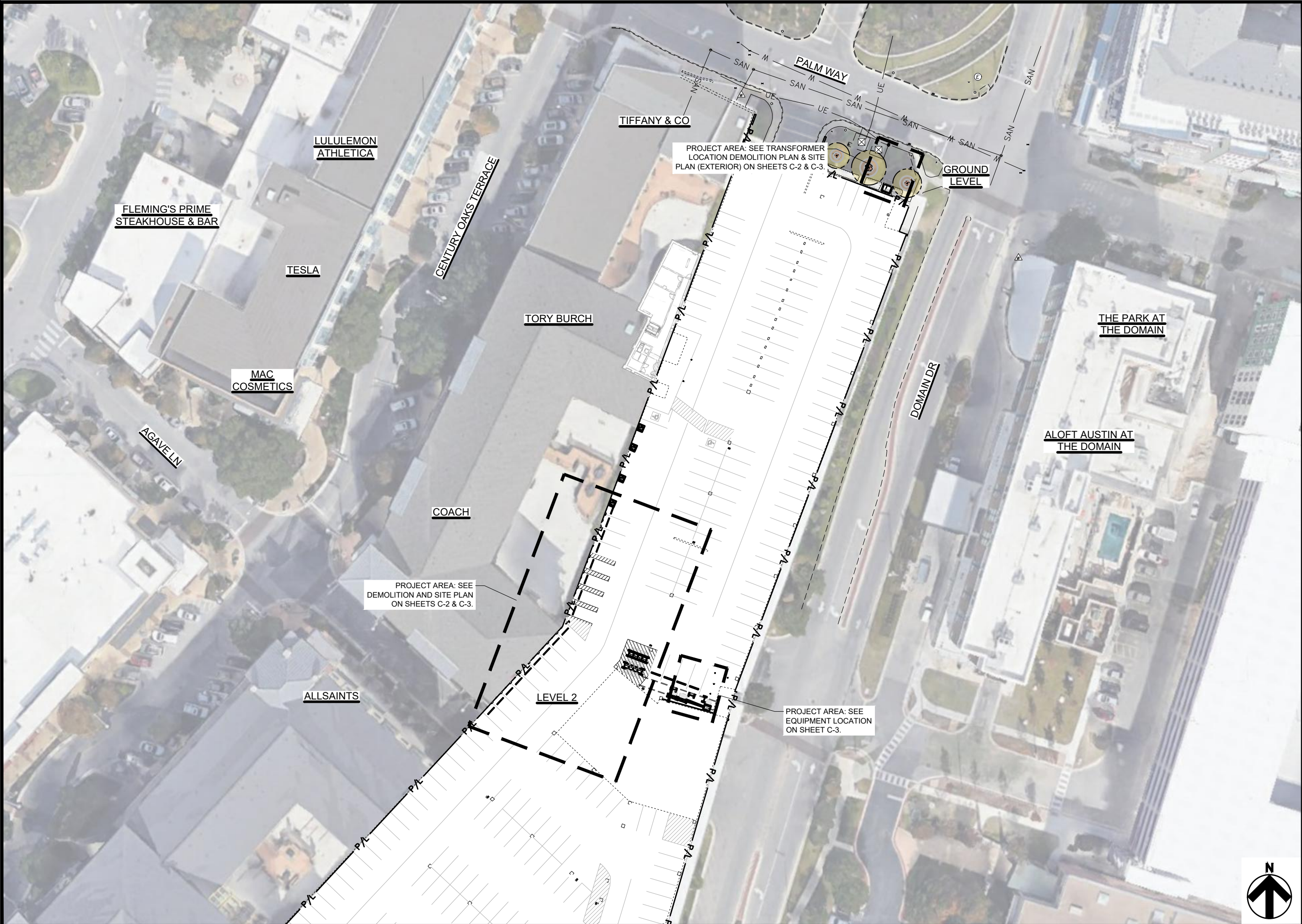
GRAPHIC SCALE
FOR REFERENCE ONLY
NOT TO SCALE
(IN FEET)
1 inch = 30 ft.

Revisions		
No.	Description	Date

SITE NAME:
AUSTIN, TX

TOPOGRAPHIC SURVEY
A PORTION OF THE J.T. CHAMBERS
ABSTRACT NUMBER 7
AUSTIN, TRAVIS COUNTY, TX.

Project No.	180996	Drawn By: D.K.L.	Date: 9/7/2018
		Checked By:	Sheet 1 of 1



OVERALL SITE PLAN

0' 30' 60'

SCALE: 1"=60'



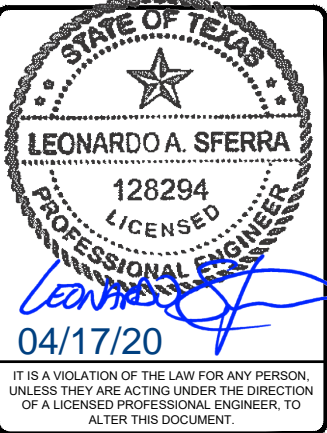
3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000



GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation
Texas Registration No. 16477

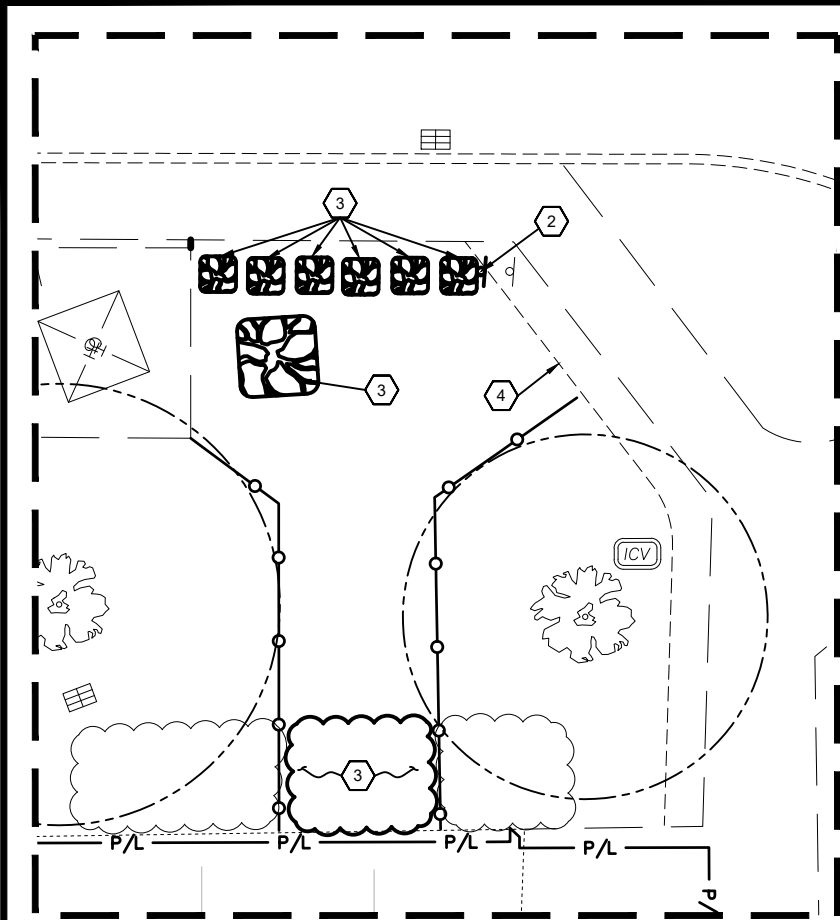
F	04.17.20	SIGNED AND SEALED
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E	07.25.19	SIGNED AND SEALED
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B	10.31.18	ISSUED FOR 100% REVIEW
A	10.02.18	ISSUED FOR 50% REVIEW
REV	DATE	DESCRIPTION



11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
OVERALL SITE
PLAN

SHEET NUMBER
C-1



- GENERAL SHEET NOTES
1. FOR TRAFFIC CONTROL PROCEDURES (IF APPLICABLE), SEE TRAFFIC CONTROL NOTES ON SHEET GN-1.
 2. SEE SHEET L-1 FOR EXISTING TREE SURVEY AND ANALYSIS.

- DEMOLITION KEYNOTES AND LEGEND #
1. EXISTING PAVEMENT MARKINGS TO BE REMOVED. CONTRACTOR SHALL REMOVE MARKINGS WITH SMALL HANDHELD GRINDERS, SCARIFIERS, BEAD BLASTING OR OTHER METHODS, WITH THE APPROVAL OF THE ENGINEER OF RECORD. TAKE CARE DURING MARKING REMOVAL TO NOT SCAR, DISCOLOR, OR OTHERWISE DAMAGE THE PAVEMENT SURFACE. DO NOT OVER PAINT OR USE OTHER METHODS OF COVERING MARKINGS IN LIEU OF REMOVAL.
 2. EXISTING SIGN TO BE RELOCATED. SEE SHEET C-3 FOR PROPOSED LOCATION.
 3. EXISTING LANDSCAPE SHRUBS TO BE REMOVED.
 4. EXISTING METAL LANDSCAPE EDGING TO REMAIN PROTECTED THROUGHOUT CONSTRUCTION.
- PROPOSED TREE PROTECTION FENCE, SEE DETAIL 2 ON SHEET C-6



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GPD GROUP
Professional Corporation
520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

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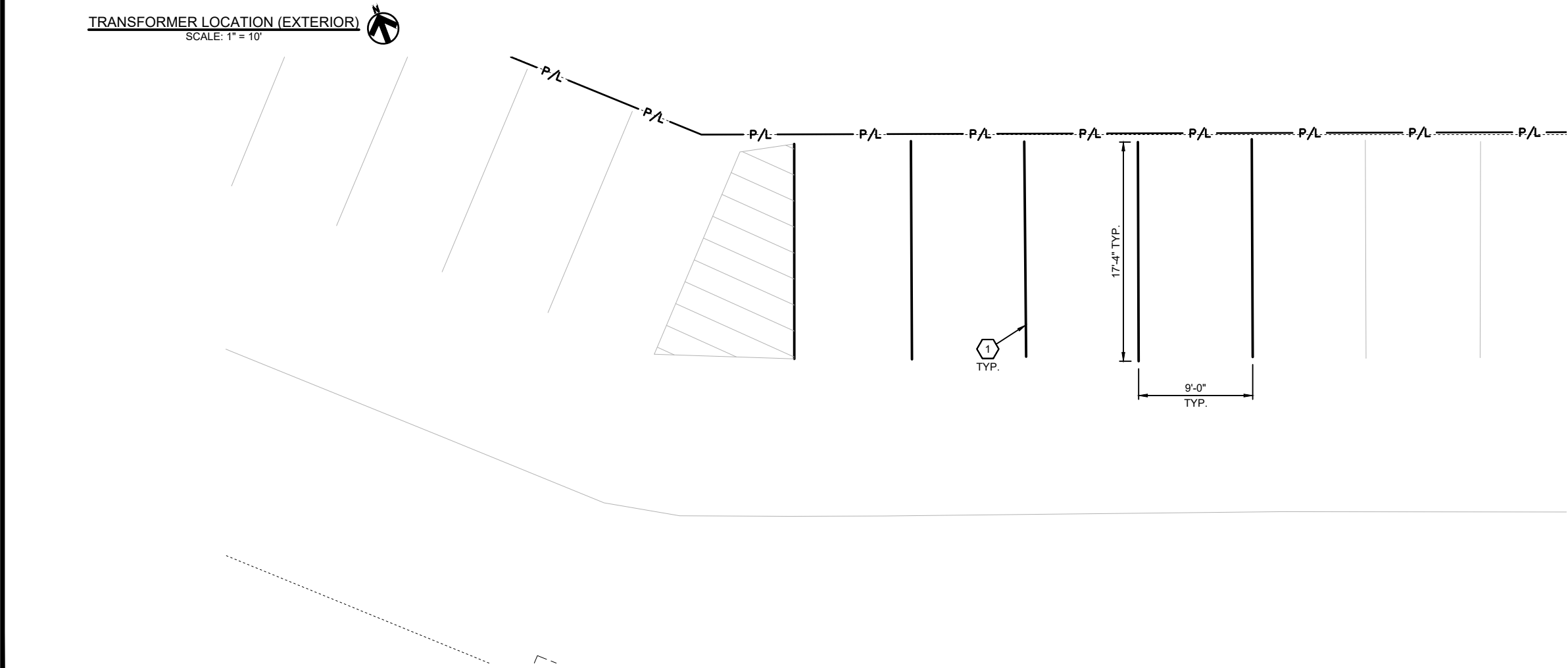


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11410 CENTURY
OAKS TERRACE
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SHEET TITLE
DEMOLITION PLAN

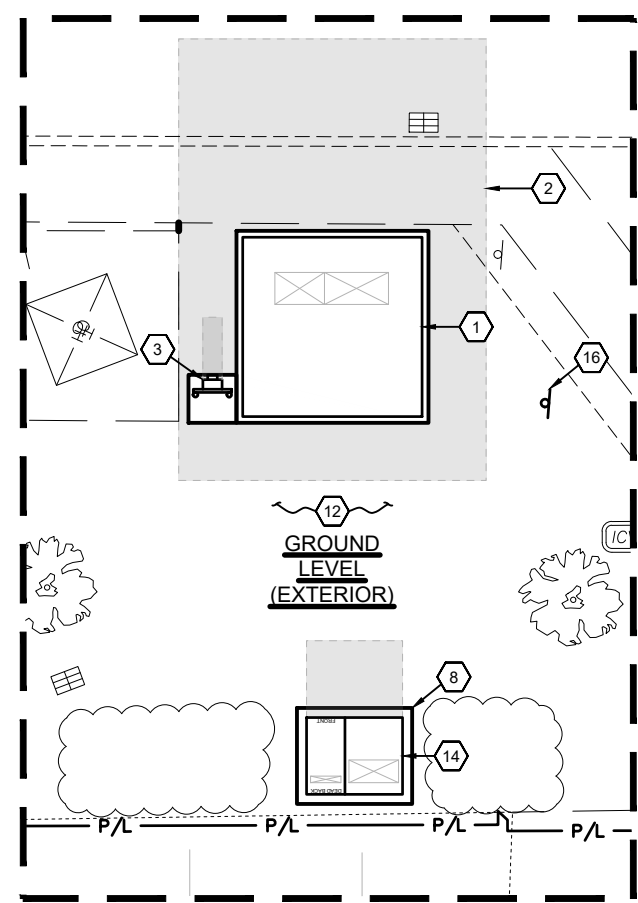
SHEET NUMBER
C-2



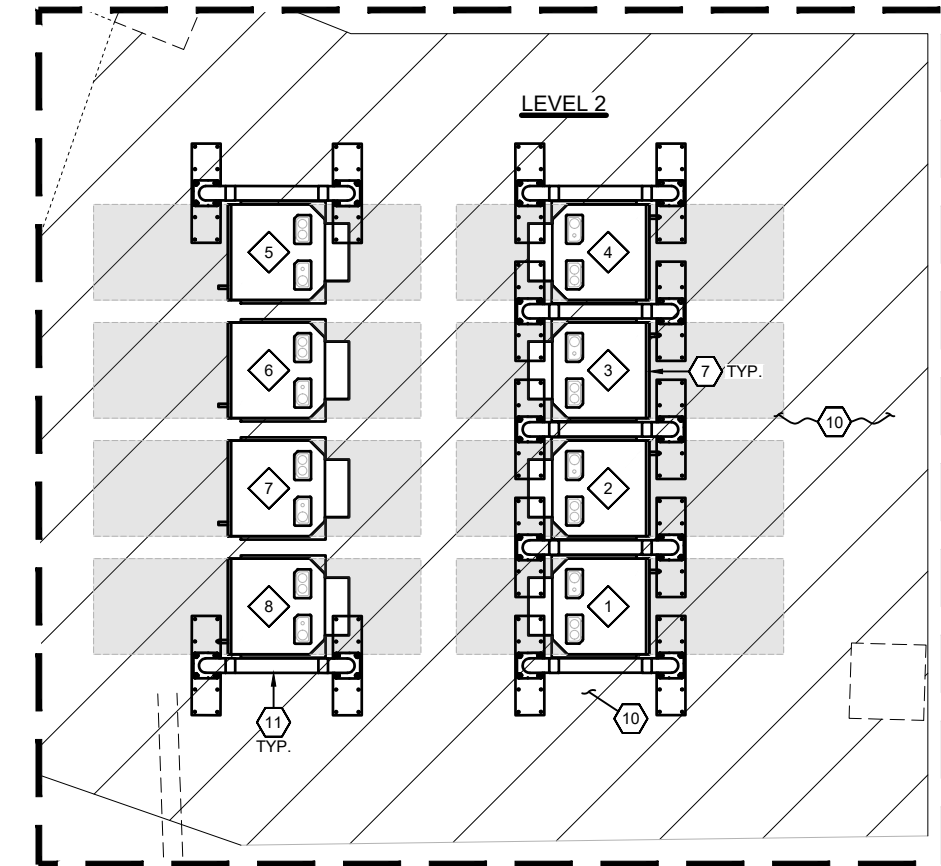
DEMOLITION PLAN

0' 10' 20'

SCALE: 1"=20'



TRANSFORMER LOCATION (EXTERIOR)
SCALE: 1" = 10'



ENLARGEMENT A (LEVEL 2)
SCALE: 1" = 5'

CHARGING POST CIRCUIT SCHEDULE		
CHARGING CABINET	CHARGE POST	DEDICATED/ENABLED
1	1A	DEDICATED
	1B	DEDICATED
2	2A	DEDICATED
	2B	DEDICATED
3	3A	DEDICATED
	3B	DEDICATED
4	4A	DEDICATED
	4B	DEDICATED
5	5A	ENABLED
	5B	ENABLED
6	6A	ENABLED
	6B	ENABLED
7	7A	ENABLED
	7B	ENABLED
8	8A	ENABLED
	8B	ENABLED

GENERAL SHEET NOTES	
1. FOR TRAFFIC CONTROL PROCEDURES (IF APPLICABLE), SEE TRAFFIC CONTROL NOTES ON SHEET GN-1.	

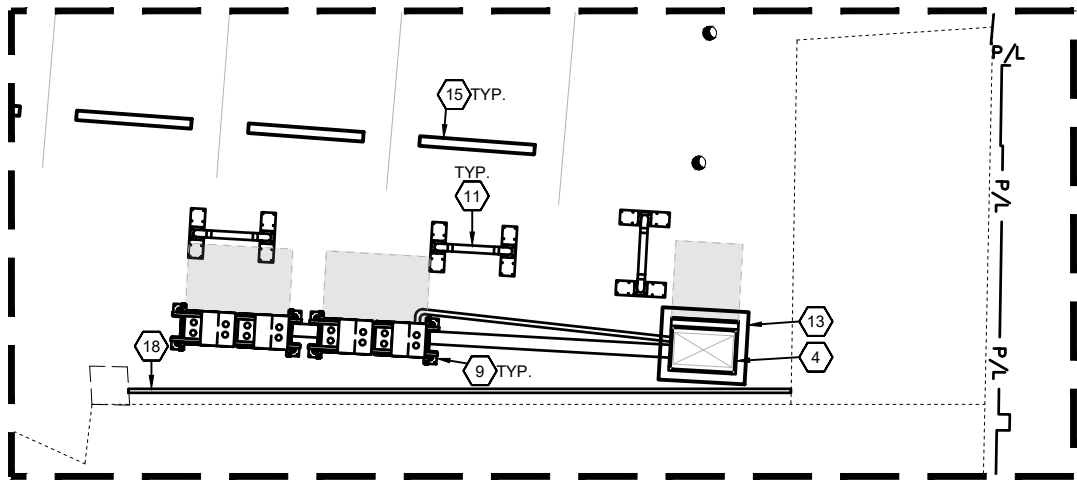
72KW TESLA INDOOR EQUIPMENT SCHEDULE			
TESLA EQUIPMENT	DESCRIPTION	PART NUMBER	QUANTITY
CHARGING CABINET	CHARGER CABINET GEN. 1	1133063-00	8
CHARGING POST	CHARGE POST VER. 1	1108926-00	16
CHARGING CABINET MOUNT BASE	DALSIN PREFAB	1145118-00-A	8
CHARGING POST MOUNT BASE	DALSIN PREFAB	1145086-00-A	16
CHARGING POST MOUNT HARDWARE	AFC FASTENERS	1145087-00-A	16

PARKING STALL SCHEDULE	
EXISTING STANDARD STALLS UTILIZED AS A RESULT OF THIS PROJECT	17
PROPOSED TESLA STALLS	16
PROPOSED STANDARD STALLS	0
NET STALL COUNT	-1

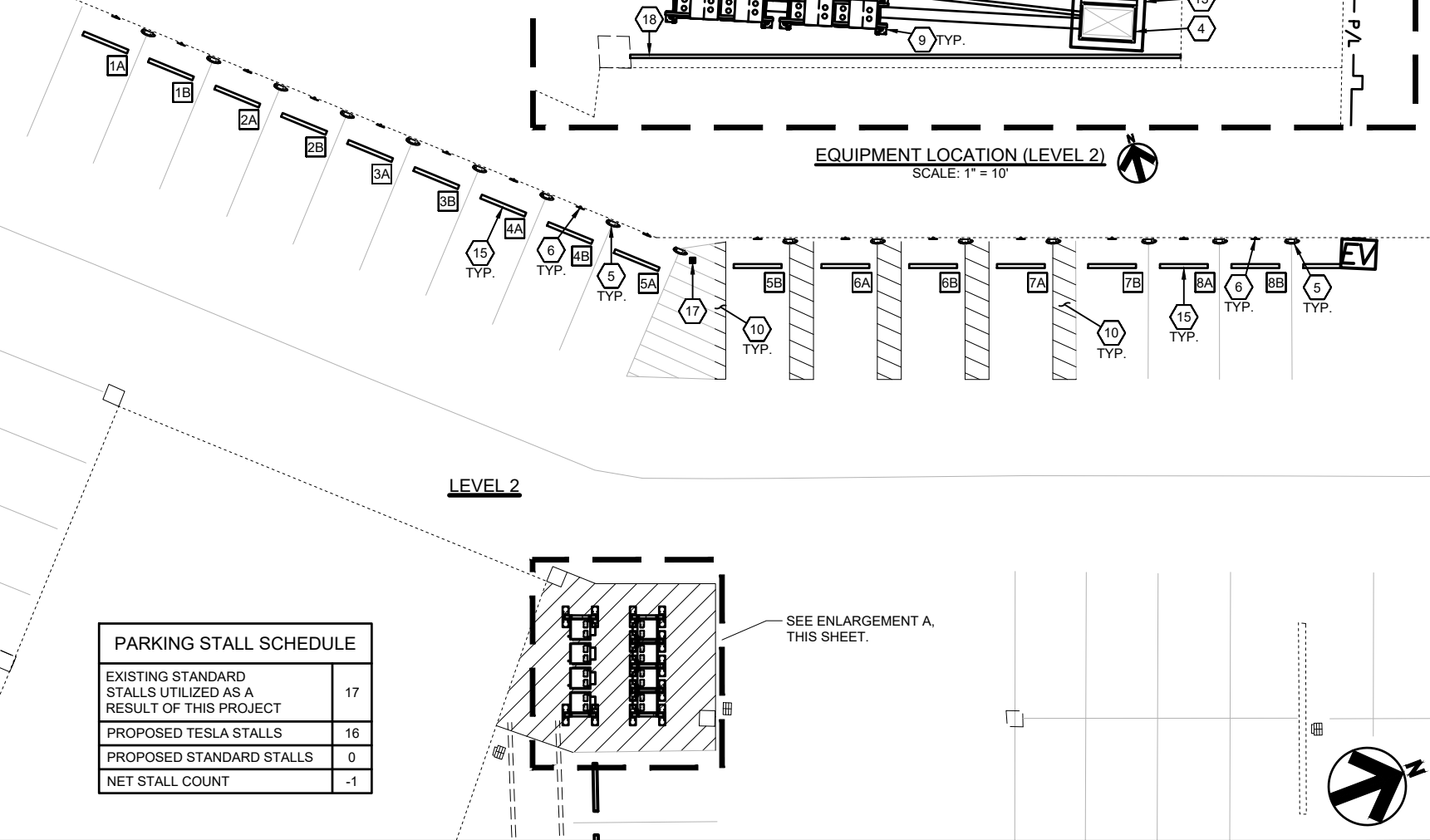
SITE PLAN - LEVEL 2

CONSTRUCTION KEYNOTES #

- PROPOSED PAD MOUNTED ELECTRICAL UTILITY TRANSFORMER (BY UTILITY). CONTRACTOR SHALL PROVIDE CONCRETE PAD PER UTILITY SPECIFICATIONS. COORDINATE FINAL LOCATION WITH UTILITY. SEE ELECTRICAL PLANS FOR PROPOSED ROUTING.
- PROPOSED EQUIPMENT CLEAR SPACE (TYPICAL).
- PROPOSED ELECTRIC METER MOUNTED TO H-FRAME PER ELECTRIC COMPANY SPECIFICATIONS AND DETAILS ON ELECTRICAL SHEETS.
- PROPOSED DISTRIBUTION PANEL ON 4" HIGH HOUSEKEEPING PAD. SEE DETAIL ON SHEET C-7 AND ELECTRICAL DRAWINGS.
- PROPOSED TESLA CHARGE POST (TYPICAL OF 16). SEE DETAILS ON SHEET C-7.
- PROPOSED TESLA NON-ILLUMINATED WALL-MOUNTED PARKING SIGN (TYPICAL OF 16). SEE DETAILS ON SHEET C-6. SEE CHARGING POST SCHEDULE THIS SHEET.
- PROPOSED TESLA CHARGING CABINET ON MOUNT BASE (TYPICAL OF 8). SEE DETAILS ON SHEET C-7 & C-8.
- PROPOSED CONCRETE PAD. SEE DETAIL ON SHEET C-7.
- PROPOSED AUTOTRANSFORMERS ON FRAME (TYPICAL OF 8). SEE DETAILS ON SHEET S-1 AND ELECTRICAL SHEETS.
- PROPOSED PAINTED 4" WIDE WHITE TRANSVERSE STRIPING. STRIPING SHALL BE 3'-0" O.C. SEE DETAIL ON SHEET C-6.
- PROPOSED U-BOLLARD (TYPICAL OF 10). SEE DETAILS ON SHEET C-9 AND C-10.
- ALL DISTURBED AREAS NOT TO BE PAVED SHALL BE MULCHED PER LANDSCAPE/IRRIGATION NOTES ON SHEET GN-2.
- PROPOSED 4" HIGH HOUSEKEEPING PAD. SEE DETAIL ON SHEET C-7.
- PROPOSED SERVICE ENTRANCE DISCONNECT PER ELECTRICAL DRAWINGS ON 4" HIGH HOUSEKEEPING PAD. SEE DETAILS ON SHEET C-7.
- PROPOSED RUBBER WHEELSTOP (TYPICAL OF 19). SEE DETAIL ON SHEET C-6.
- PROPOSED LOCATION OF RELOCATED SIGN.
- PROPOSED BOLLARD FOR CHARGE POST PROTECTION. SEE DETAIL ON SHEET C-8.
- CONTRACTOR SHALL REMOVE EXISTING RAILING AND SHALL INSTALL PROPOSED HANDRAIL MOUNTED TO EXISTING PARAPET WALL. RAILING SHALL BE RATED FOR OSHA FALL PROTECTION, INSTALLED 42" TALL WITH 21" HEIGHT OF MIDRAIL WITH OPTIONAL KICKPLATE. OWNER TO PROVIDE FINAL APPROVAL OF RAILING TYPE AND OPTIONS.



EQUIPMENT LOCATION (LEVEL 2)
SCALE: 1" = 10'



0' 10' 20'

SCALE: 1"=20'



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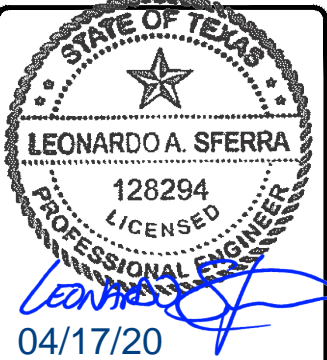


520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

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CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation
Texas Registration No. 16477

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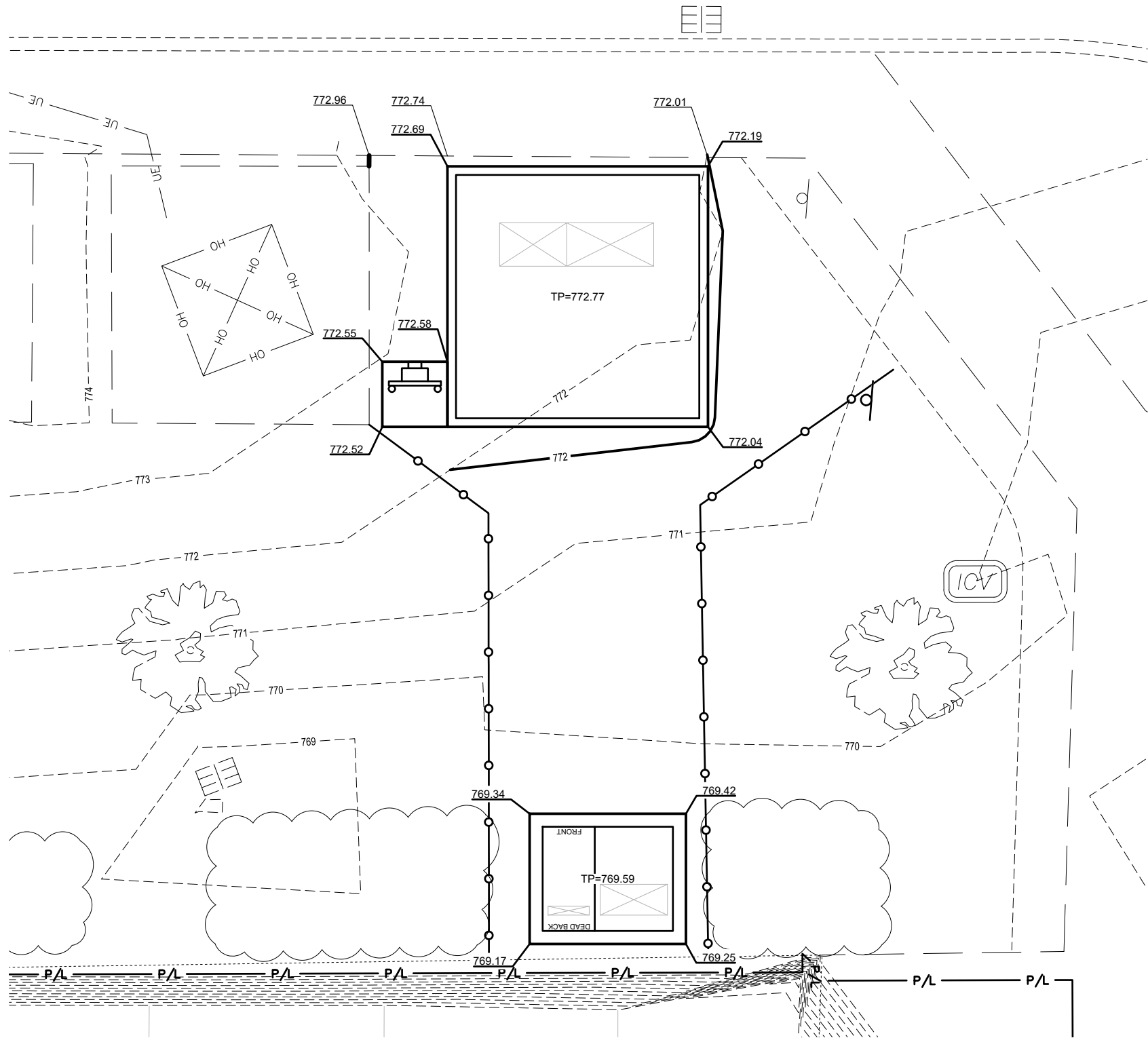
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11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
SITE PLAN - LEVEL 2

SHEET NUMBER

C-3



GRADING LEGEND

000.00

EX.

000.00

EXISTING ELEVATION

T=000.00

B=000.00

000.00

PROPOSED ELEVATION AT FINISHED GROUND ELEVATION

TP=000.00

000.00+*

PROPOSED TOP OF CURB ELEVATION
PROPOSED BOTTOM OF CURB/FINISHED PAVEMENT ELEVATION

TP=000.00

000.00+*

PROPOSED TOP OF PAD ELEVATION

000.00+*

0.0%

MATCH EXISTING ELEVATION

0.0%

0.0%

PROPOSED DRAINAGE SLOPE AND DIRECTION

BENCHMARK

SEE CLARK SURVEY FOR ALL APPLICABLE BENCHMARKS.

TESLA

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STATE OF TEXAS

LEONARDO A. SFERRA

128294

PROFESSIONAL ENGINEER

04/17/20

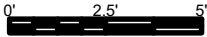
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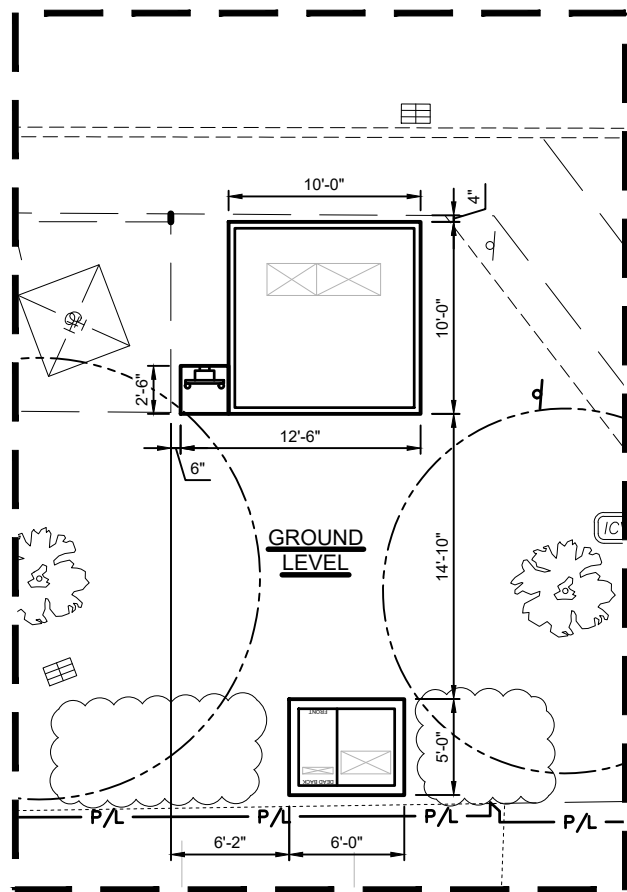
SHEET TITLE
GRADING PLAN

SHEET NUMBER
C-4

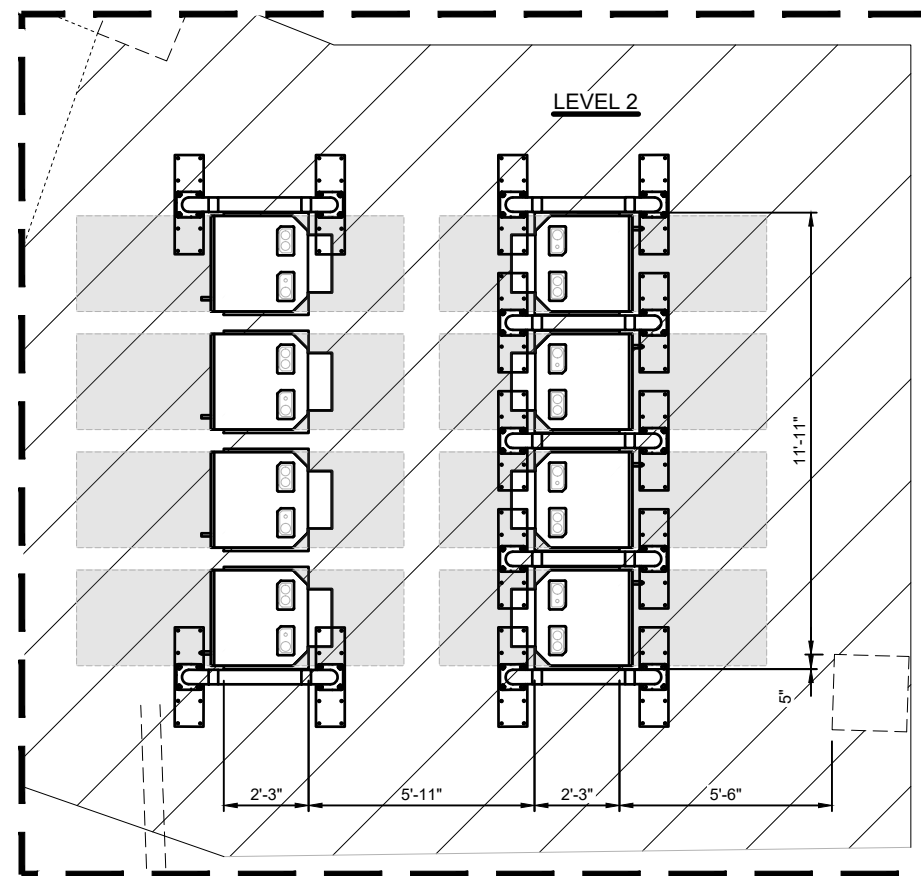
GRADING PLAN



SCALE: 1"=5'

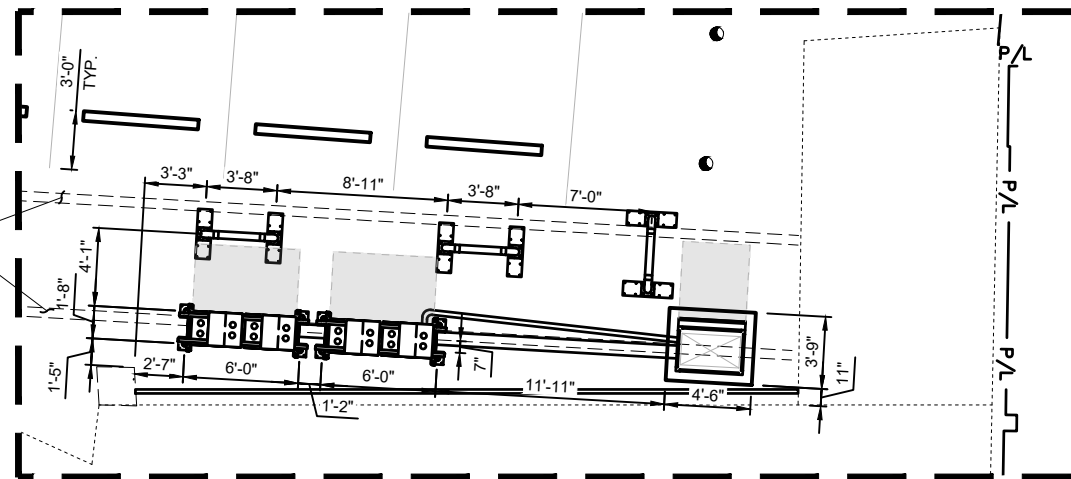


TRANSFORMER LOCATION (EXTERIOR)
SCALE: 1" = 10'

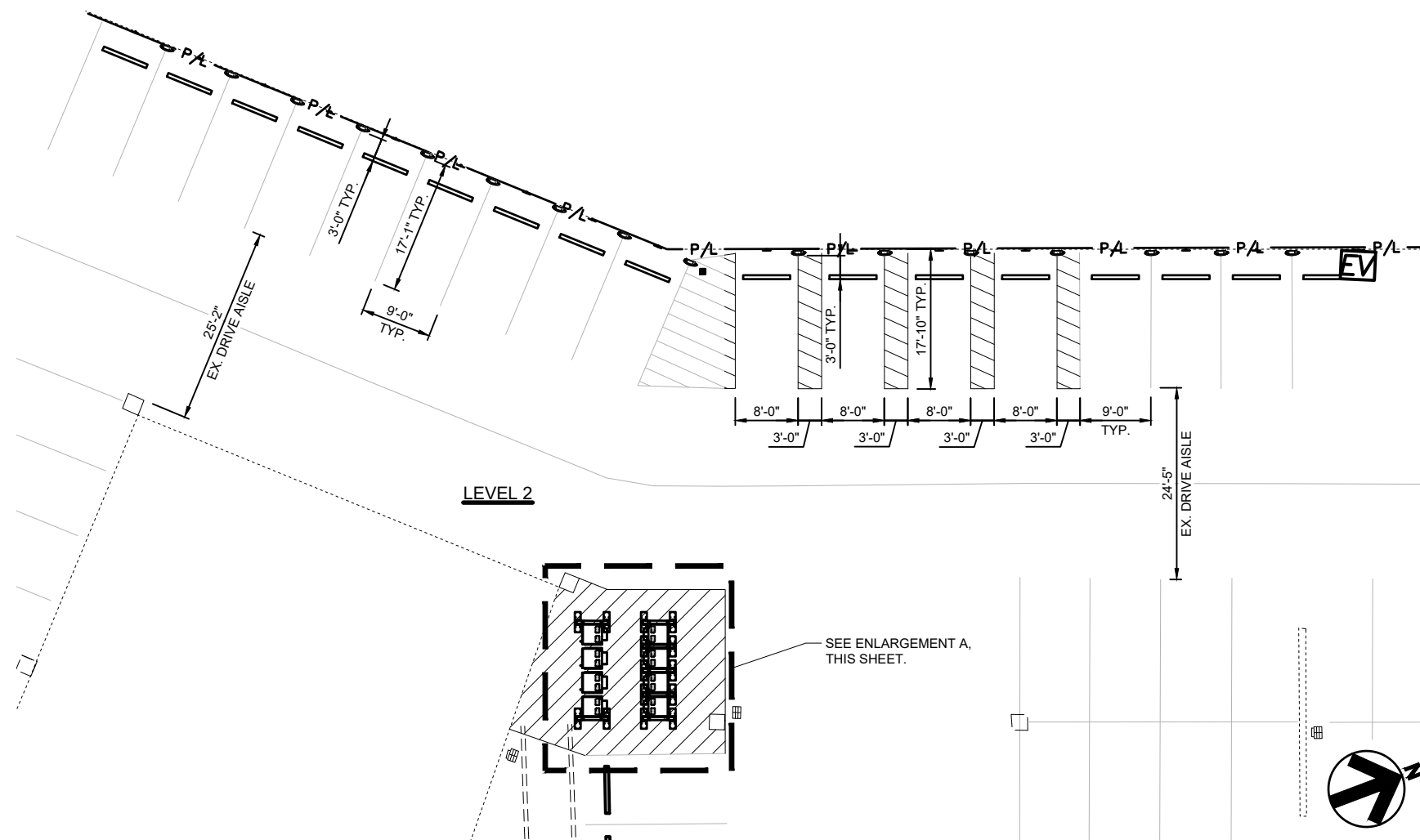


ENLARGEMENT A (LEVEL 2)
SCALE: 1" = 5'

EXISTING CEILING BEAMS
(LOCATED ON LEVEL 1 CEILING)



EQUIPMENT LOCATION (LEVEL 2)
SCALE: 1" = 10'



EQUIPMENT DIMENSION PLAN

0' 10' 20'

SCALE: 1"=20'



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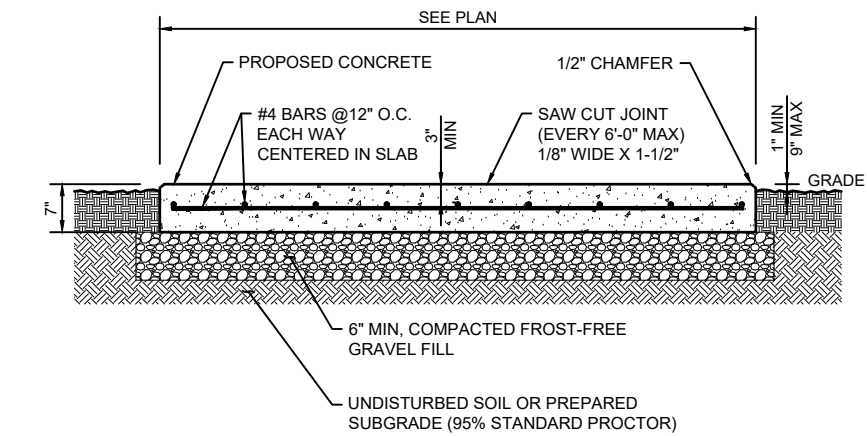
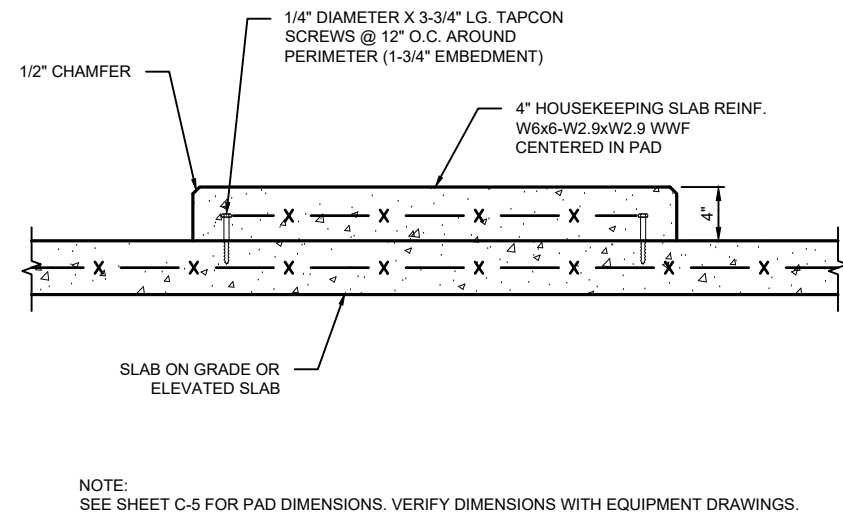
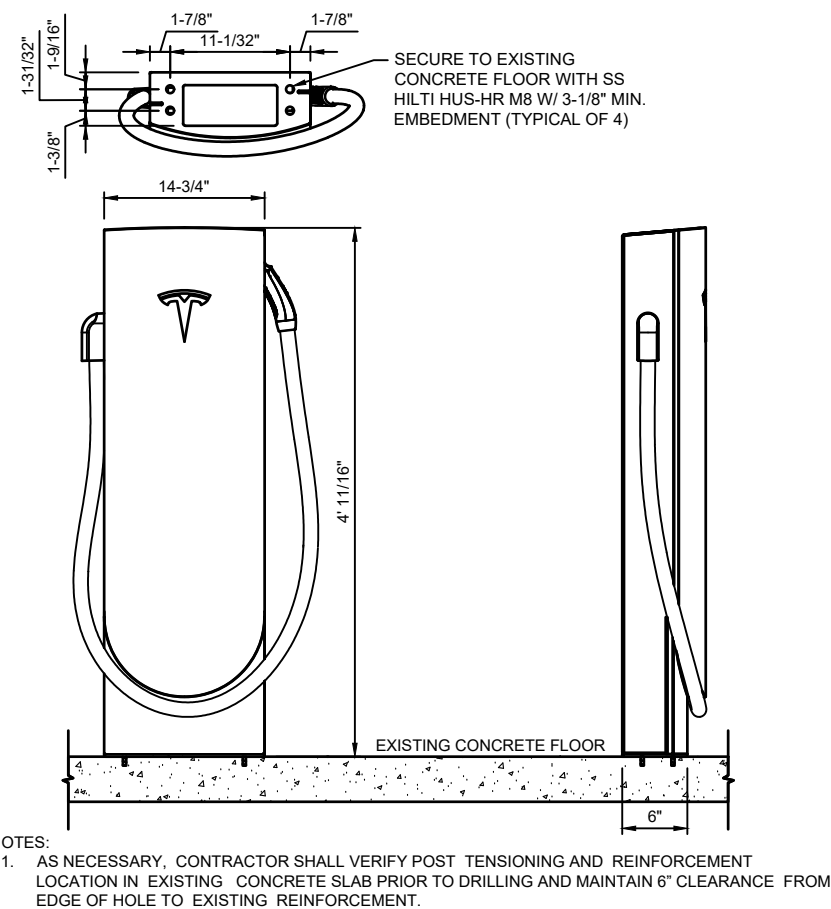
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11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
EQUIPMENT
DIMENSION PLAN

SHEET NUMBER

C-5

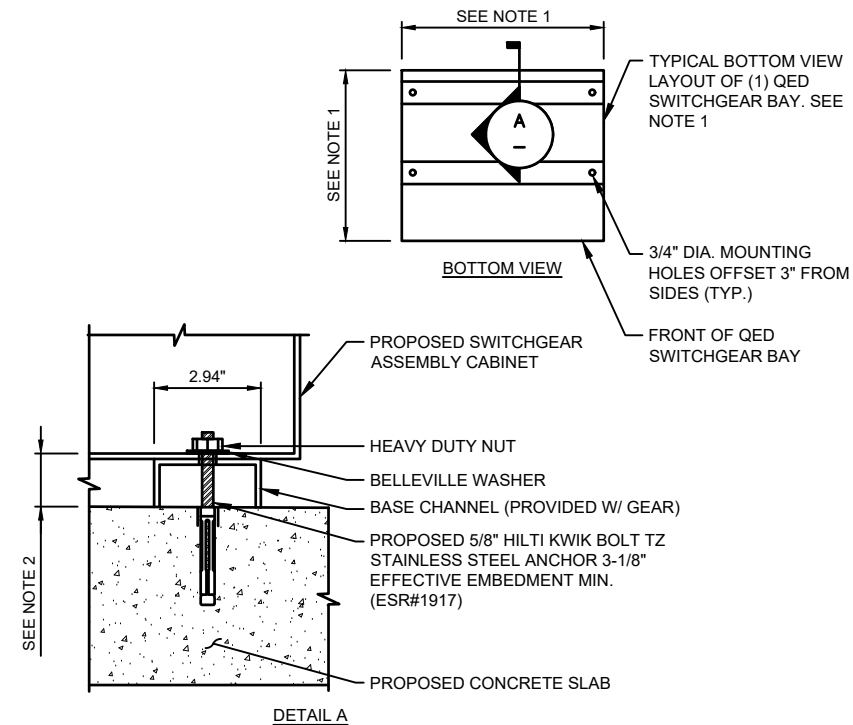
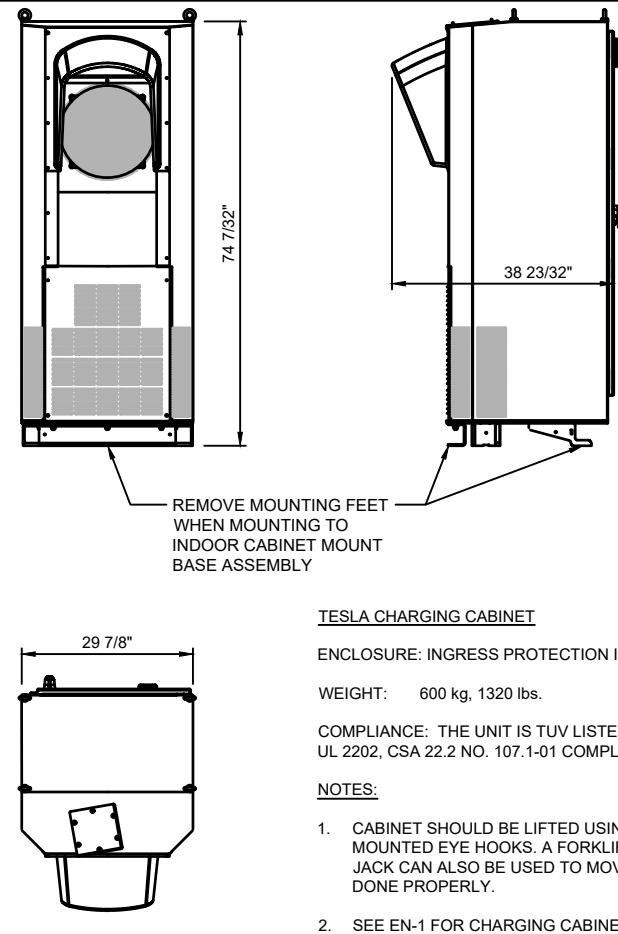
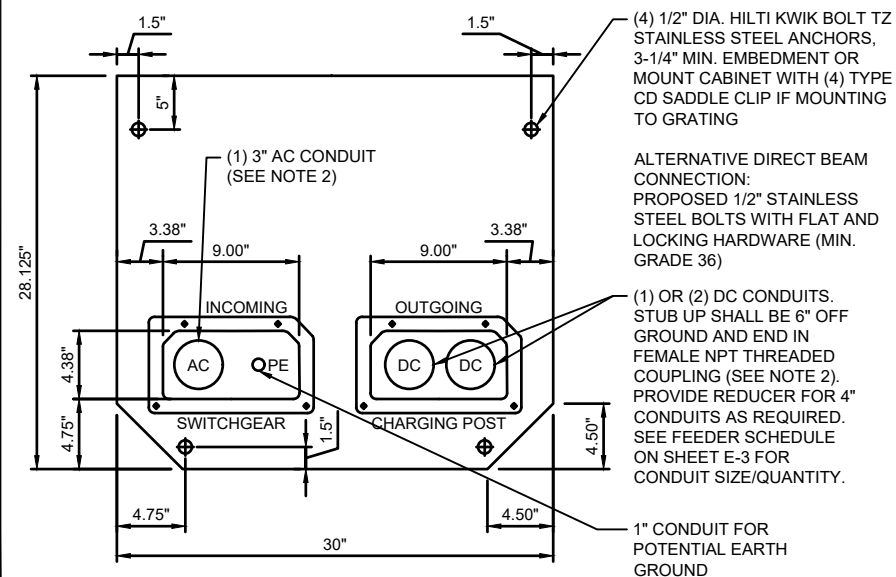


- CONCRETE PAD NOTES & CONCRETE SPECIFICATIONS:

1. FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. OTHER UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
2. UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
3. CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'_c)=4000 psi.
4. REINFORCING BAR TO BE ASTM A615 GRADE 60.
5. ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
6. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO ACI 318-14 AND APPLICABLE STATE BUILDING CODE.
7. PAD SHALL BE A MINIMUM OF 8" IN THICKNESS. THICKNESS OF PAD SHALL INCREASE AS THE PERIMETER SOIL SURFACE SLOPES TO MAINTAIN A MINIMUM OF 6" OF SOIL COVER TO THE BOTTOM OF THE PAD.
8. MAXIMUM FOUNDATION REVEAL SHALL BE 9".

- NOTE:

1. TESLA PROVIDED TEMPLATE PLATE TO BE USED TO LAYOUT CHARGING CABINET ANCHORING BOLT LOCATIONS AND CONDUIT STUB UP LOCATIONS.
2. BOLT HOLES FOR REFERENCE ONLY.
3. USE DOTTIE DUCT SEAL COMPOUND PC 6130 (CAT NO LHD1) TO SEAL ENDS OF CONDUIT (TYP. ALL CONDUITS FOR CHARGING CABINETS AND CHARGE POSTS)
4. USE BELL FITTINGS ON ALL AC AND DC CONDUIT STUBS
5. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING REINFORCEMENT BEFORE DRILLING. ENSURE 1" GAP BETWEEN ANCHORS AND EXISTING REINFORCEMENT.
6. SEE DETAIL 1, SHEET C-8 FOR MOUNT BASE ASSEMBLY.

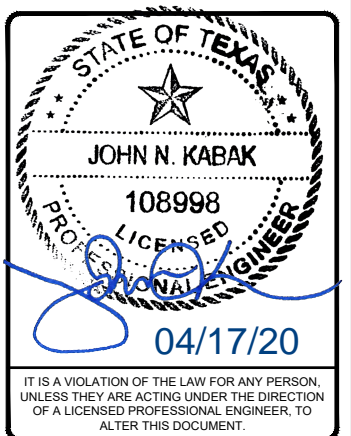


- NOTES:**
1. SEE FLOOR PLAN ON ELECTRICAL SHEETS FOR MOUNTING HOLE LOCATION AND SWITCHGEAR BAY DIMENSIONS.
 2. SEE ELEVATION ON ELECTRICAL SHEETS FOR BASE CHANNEL DIMENSION.
 3. MINIMUM EDGE DISTANCE FOR PROPOSED ANCHORAGE SHALL BE 8".



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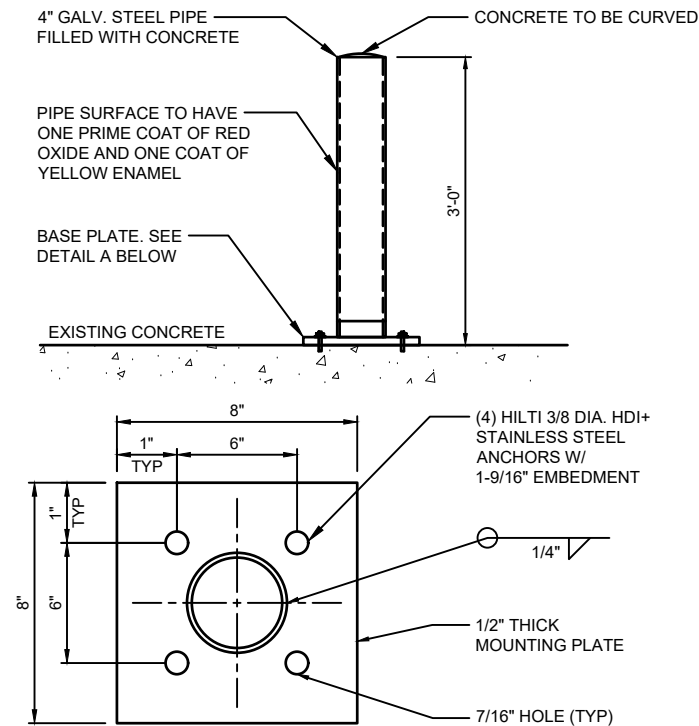
11410 CENTURY
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SHEET TITLE

CIVIL DETAILS

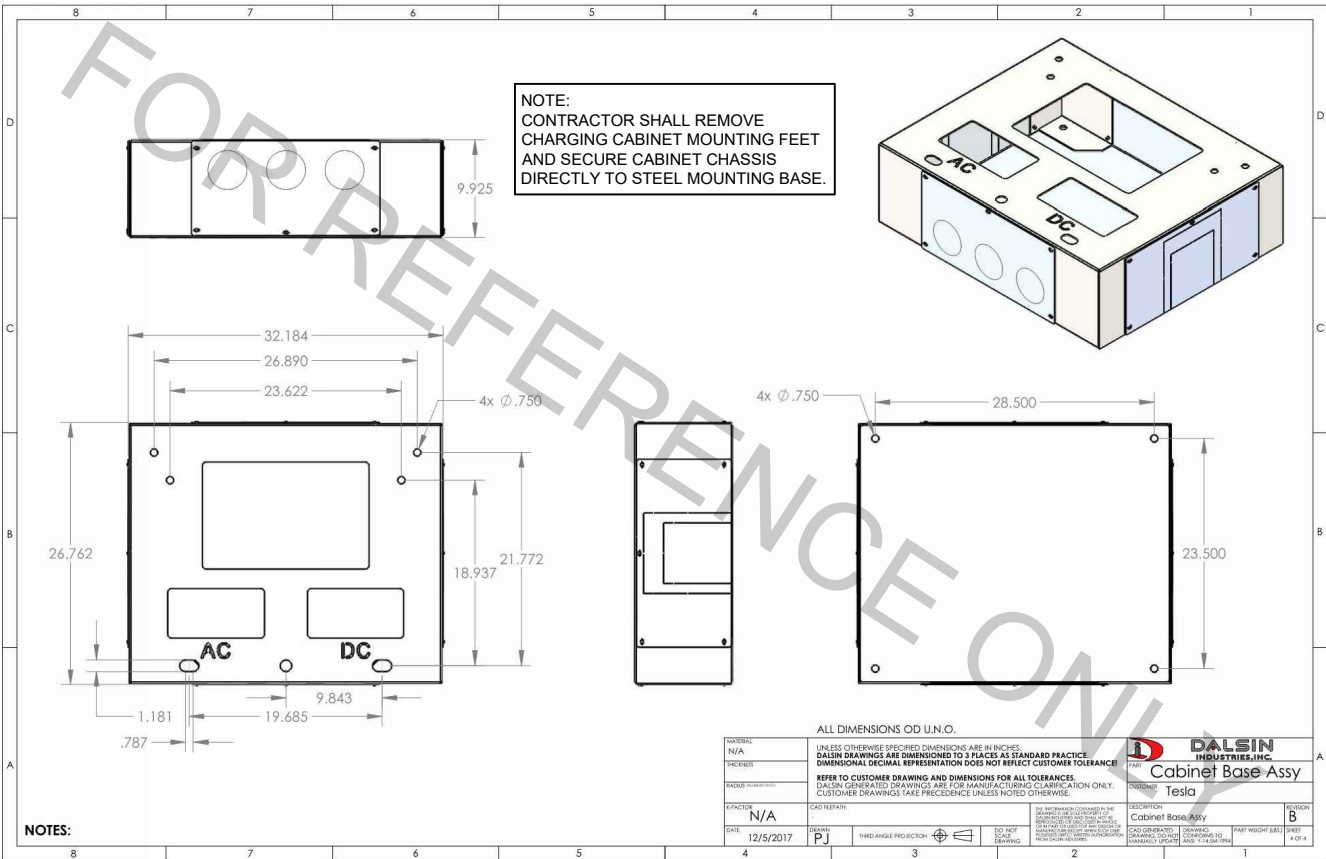
SHEET NUMBER

C-7



DETAIL A

NOTES:
CONTRACTOR SHALL X-RAY CONCRETE SLAB TO FIELD VERIFY EXISTING REINFORCEMENT LOCATIONS BEFORE DRILLING. CONTRACTOR SHALL TAKE GREAT CARE TO ENSURE AT LEAST 3" GAP BETWEEN ANCHORS AND EXISTING REINFORCEMENT AND STRESSING TENDONS.



- NOTES:
1. CHARGING CABINET STEEL MOUNTING BASE IS DESIGNED AND ENGINEERED BY DAL SIN INDUSTRIES, INC. INTERIOR EDGES OF CHARGING POST STEEL MOUNTING BASE AND ASSOCIATED HARDWARE SHALL BE COVERED TO PROTECT CABLES FROM DAMAGE.
 2. CHARGING CABINET STEEL MOUNTING BASE IS PROVIDED BY TESLA AND INSTALLED BY CONTRACTOR.
 3. GROUND/BOND CHARGING CABINET STEEL MOUNTING BASE PER NEC REQUIREMENTS.
 4. CONTRACTOR SHALL PROVIDE WEATHERTIGHT CONNECTIONS BETWEEN CHARGING CABINET STEEL MOUNTING BASES & WIREWAY JUNCTIONS.
 5. BOTTOM STEEL PLATE PROVIDED WITH BASE. GROUND/BOND PER NEC REQUIREMENTS.
 6. CONTRACTOR SHALL REMOVE CHARGING CABINET MOUNTING FEET AND SECURE CABINET CHASSIS DIRECTLY TO STEEL MOUNTING BASE.
 7. CHARGING CABINET STEEL MOUNTING BASE SHALL BE SECURED TO CONCRETE FLOOR W/ 1/2" DIA. HILTI HDI+ STAINLESS STEEL DROP-IN ANCHORS, EMBEDMENT 2" (TYPICAL OF 4 ANCHORS PER BASE)

PARKING GARAGE BOLLARD DETAIL

N.T.S

3

CHARGING CABINET MOUNT BASE ASSEMBLY DETAIL

N.T.S

1

DETAIL NOT USED

N.T.S

2

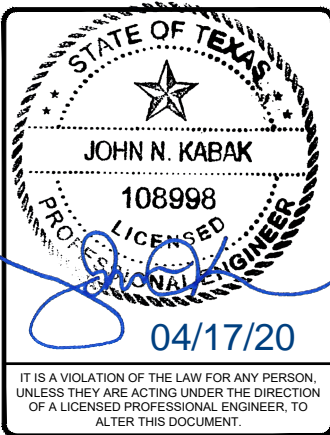


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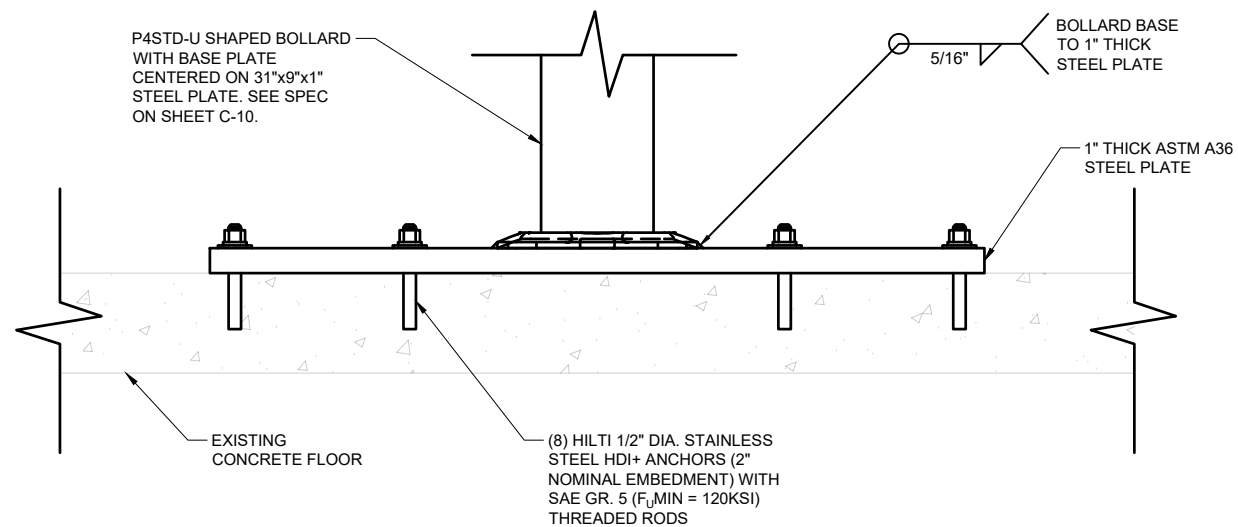
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SHEET TITLE
CIVIL DETAILS

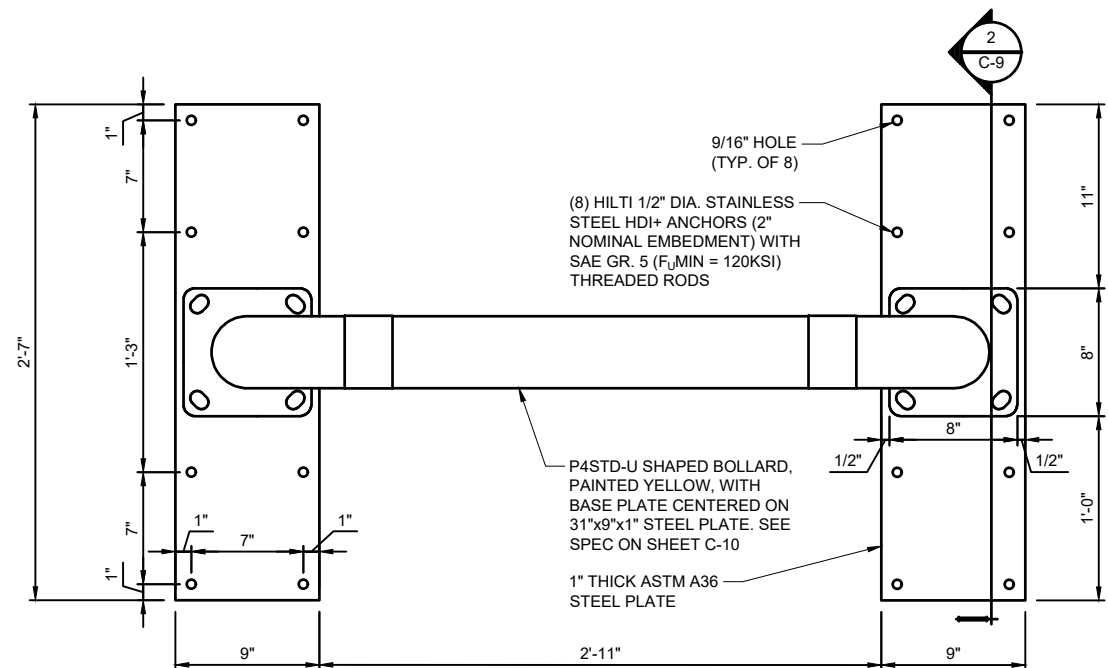
SHEET NUMBER
C-8



U-BOLLARD BASE PLATE DETAIL

N.T.S

2



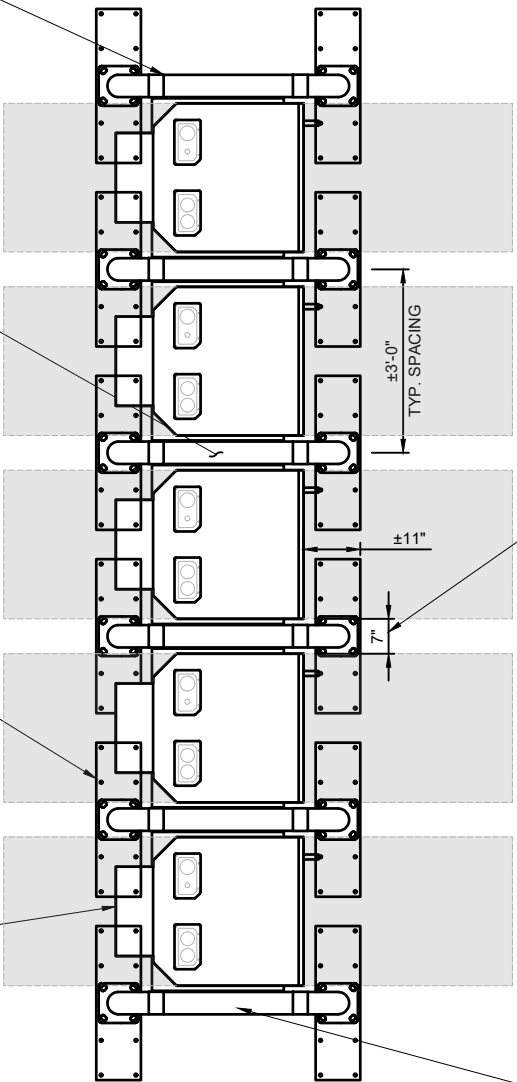
CONTRACTOR SHALL —
CONNECT CHARGING
CABINET BASE ASSEMBLIES
TOGETHER WITH SEPARATE
AC AND DC WIREWAYS. AC/DC
CONDUCTOR RACEWAYS TO
REMAIN CONTINUOUS. SEE
ELECTRICAL SHEETS FOR
WIREWAY SPECIFICATIONS
AND MAX FILL CALCULATIONS.
CONTRACTOR SHALL
PROVIDE KNOCKOUTS IN
CHARGING CABINET BASE
ASSEMBLY.

REFER TO U-BOLLARD —
BASE PLATE DIMENSION
PLAN THIS SHEET FOR
ANCHOR SPECIFICATIONS

PRIMARY U-BOLLARD —
PROTECTION IS FOR MAIN
CHARGING CABINET
CHASSIS. SNOW/RAIN
GUARD IS NOT INTEGRATED
WITH MAIN UNIT

NOTES:

1. REFER TO PLAN VIEWS FOR EXACT BOLLARD AND CHARGING CABINET PLACEMENT



WHERE CONDUIT RISER IS PROPOSED, CONTRACTOR SHALL ADJUST END BOLLARD PLACEMENT AS NECESSARY TO PROVIDE REQUIRED CLEARANCE FOR CONDUIT RISER INSTALLATION. SEE ELECTRICAL SHEETS FOR CONDUIT SPECIFICATIONS.

TYPICAL U-BOLLARD & CHARGING CABINET PLACEMENT DETAIL

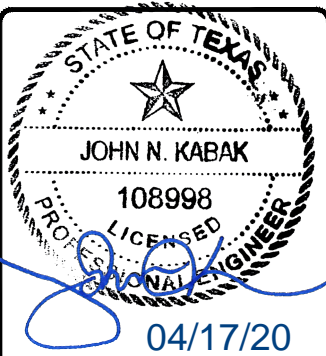
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1



GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation		
Texas Registration No. 16477		
F	04.17.20	SIGNED AND SEALED
F	03.31.20	SIGNED AND SEALED
E	07.25.19	SIGNED AND SEALED
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A	10.02.18	ISSUED FOR 50% REVIEW
REV	DATE	DESCRIPTION



IT IS A VIOLATION OF THE LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER, TO
ALTER THIS DOCUMENT.

11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE

CIVIL DETAILS

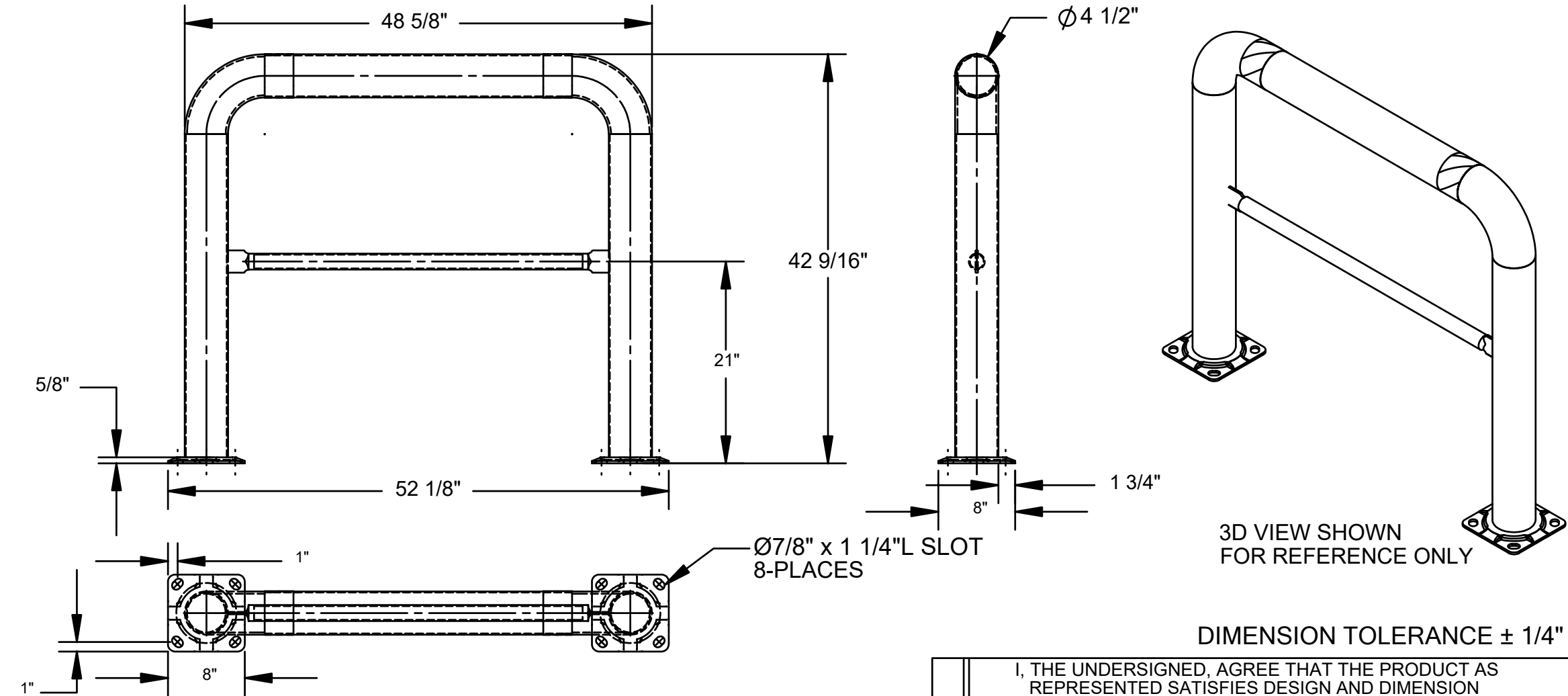
SHEET NUMBER

C-9

HIGH PROFILE MACHINERY GUARD - HPRO-48-42-4

APPROX WEIGHT: 79.44 lbs.
DOES NOT INCLUDE WEIGHT OF POWER OR PACKAGING!!!

*** ANY ADDITIONS, DELETIONS, OR OMISSIONS MUST BE CORRECTED ON THIS DRAWING AS THIS DRAWING WILL BE CONSIDERED ALL INCLUSIVE ***
ALL GRAPHICS PROVIDED ARE FOR REFERENCE ONLY. IF CERTAIN DIMENSIONS ARE CRITICAL PLEASE VERIFY THOSE DIMENSIONS WITH YOUR SALESPERSON



STANDARD FEATURES

- MODEL NUMBER: HPRO-48-42-4
- MACHINE GUARD HEIGHT: 42 9/16"
- MACHINE GUARD LENGTH: 48 5/8"
- MACHINE GUARD MIDRAIL HEIGHT: 21"
- MACHINE GUARD DIAMETER: Ø4 1/2"
- OVERALL LENGTH: 52 1/8"
- INCLUDES 2 MOUNTING BRACKETS
- YELLOW POWDER COAT FINISH
- BLACK & YELLOW SAFETY TAPE
- ALL STEEL CONSTRUCTION
- (ASTM A-36 MIN.) WITH WELDING TO MEET AWS
- WARNING: CHECK APPLICABLE STATE & LOCAL LAWS FOR YOUR AREA

SPECIAL FEATURES

NONE

APPROVAL

I, THE UNDERSIGNED, AGREE THAT THE PRODUCT AS REPRESENTED SATISFIES DESIGN AND DIMENSION REQUIREMENTS. I ALSO ACKNOWLEDGE MY DUTY TO CONFIRM PRODUCT AND INSTALLATION COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS AND STANDARDS.
ALL SPECIAL UNITS ARE NON-RETURNABLE
[] As drawn [] As marked

Signed: _____ Date: _____
LEAD TIME WILL START UPON RECEIPT OF SIGNED APPROVAL DRAWING

FOR INTERNAL USE ONLY PROJECT SIGN OFF		DISTRIBUTOR'S NAME: VESTIL MANUFACTURING		P.O.# X
SALES		DRAWN BY: ND	DATE: 6/7/05	W.O.# X
ENG.		REFERENCE: X	SCALE: 1:15	SALES: X
FAB.		QUOTED LEAD TIME: X	QUOTE # X	FILE NAME: 23-007-117
POWER				

- NOTES:
- DETAIL SHOWN ABOVE IS FOR REFERENCE ONLY AND IS DESIGNED & ENGINEERED BY VESTIL MANUFACTURING.
 - CONTRACTOR SHALL PROVIDE AND INSTALL ABOVE REFERENCED U-BOLLARD BY VESTIL MANUFACTURING OR APPROVED EQUIVALENT.



3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000

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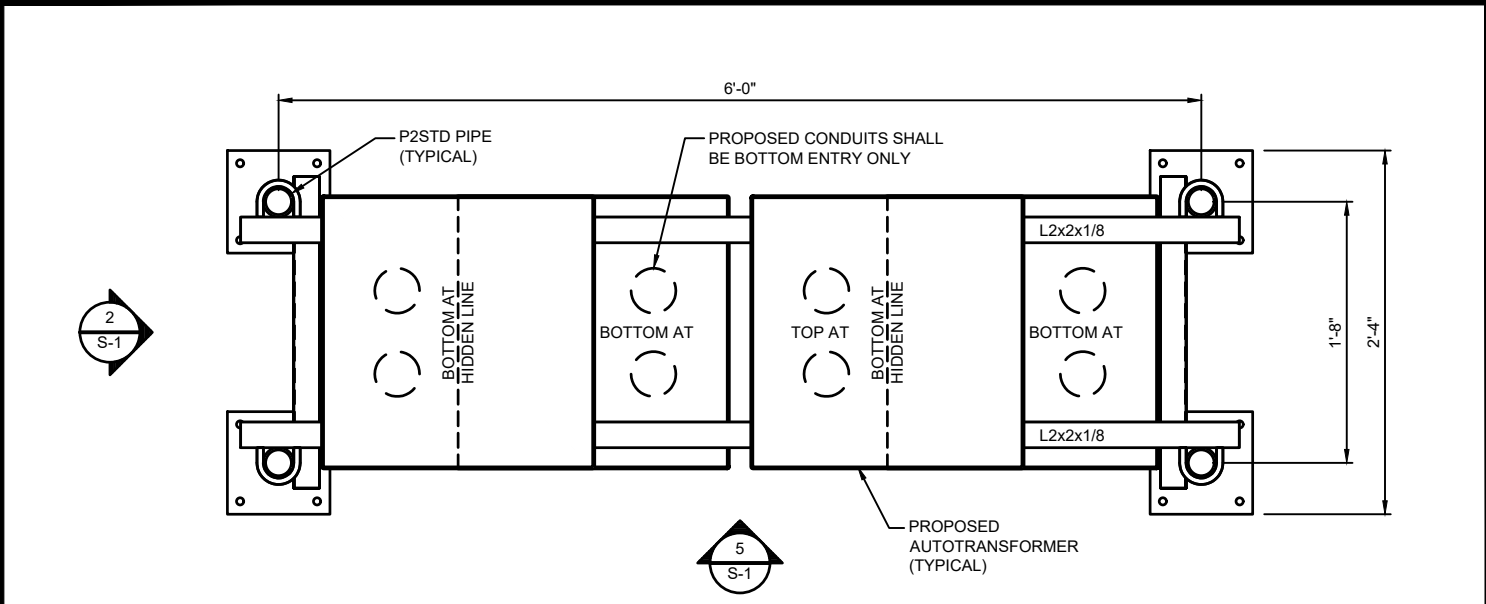
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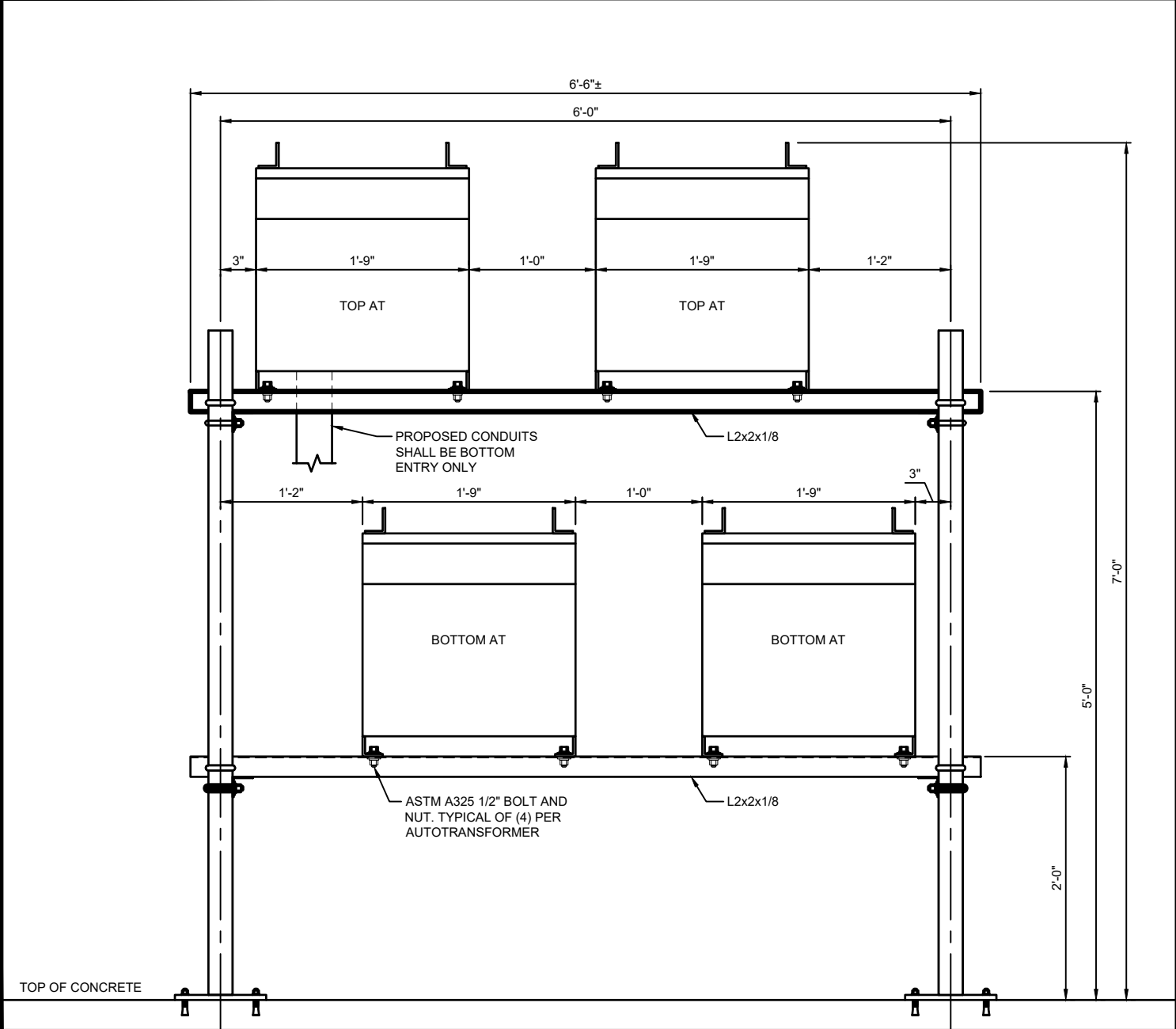
SHEET NUMBER
C-10



FRAME MOUNTED AUTOTRANSFORMERS - PLAN VIEW

N.T.S

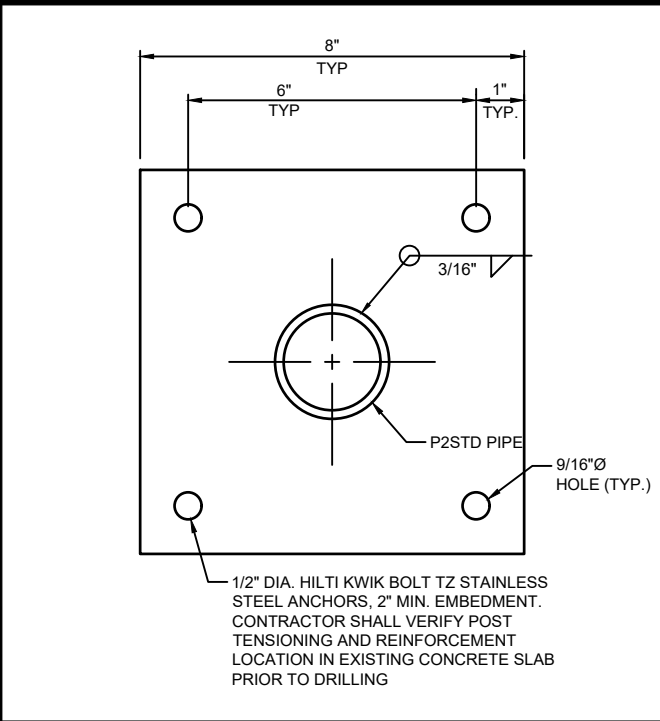
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FRAME MOUNTED AUTOTRANSFORMERS - SIDE VIEW A

N.T.S

5



BASE PLATE DETAIL

N.T.S

3

BOLT SCHEDULE				
BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16x11/16	7/8	1-1/2
5/8	11/16	11/16x7/8	1-1/8	1-7/8
3/4	13/16	13/16x1	1-1/4	2-1/4
7/8	15/16	15/16x1-1/8	1-1/2	2-5/8
1	1-1/16	1-1/16x1-5/16	1-3/4	3

SPACING

EDGE DISTANCE

-DIMENSIONS GIVEN IN INCHES

-SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED ON THE PLANS

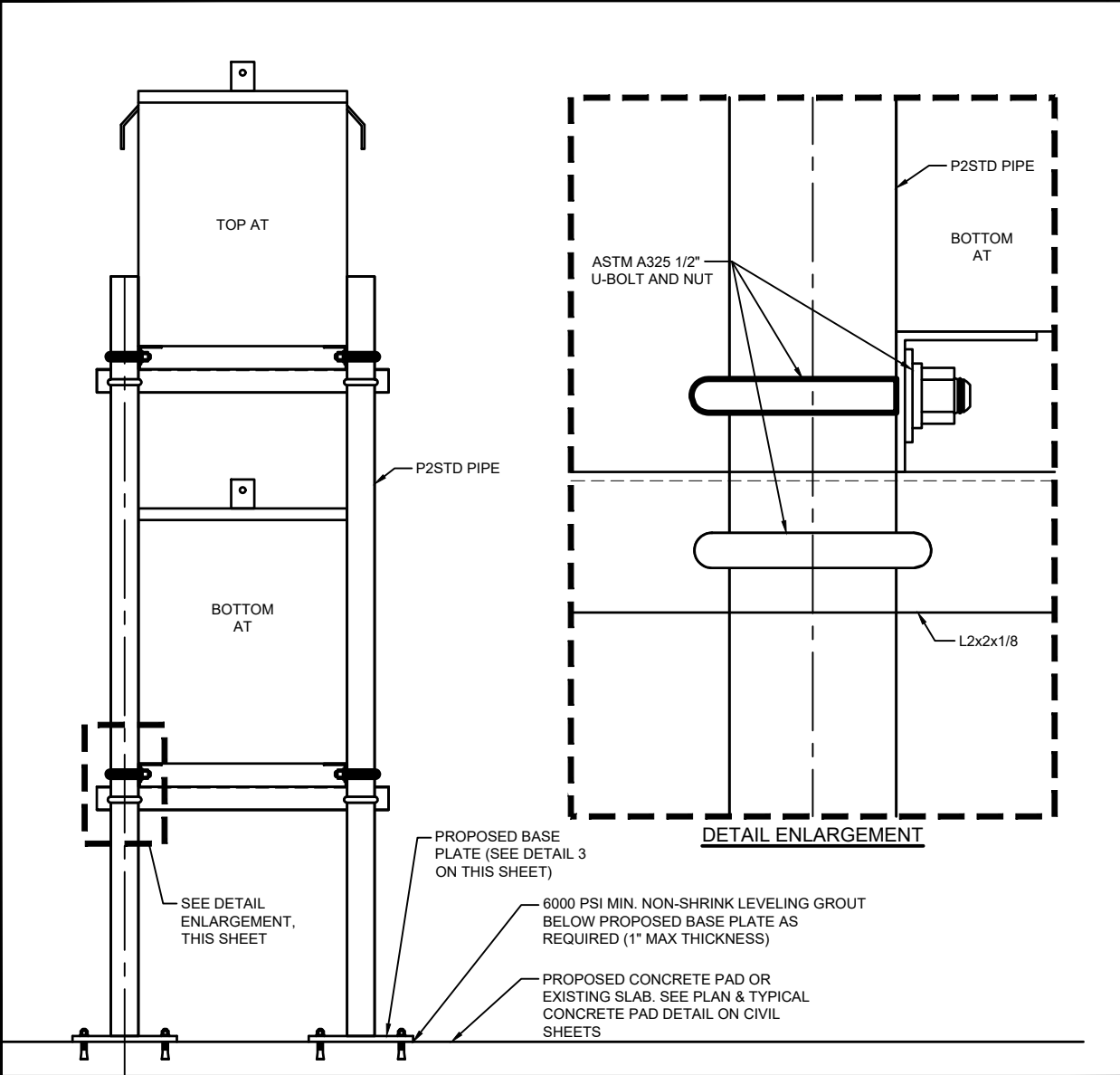
WORKABLE GAGES						
LEG	4	3-1/2	3	2-1/2	2	1-3/4
G	2-1/2	2	1-3/4	1-3/8	1-1/8	1

-DIMENSIONS GIVEN IN INCHES

-MATCH EXISTING WHEN APPLICABLE

BOLT AND WORKABLE GAGES TABLES

1



FRAME MOUNTED AUTOTRANSFORMERS - SIDE VIEW B

N.T.S

2

3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000

520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

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11410 CENTURY OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

AUTOTRANSFORMER DETAILS

SHEET NUMBER
S-1

GENERAL ELECTRICAL SPECIFICATIONS

1. THE FOLLOWING ARE ABBREVIATED SPECIFICATIONS. ALL ITEMS NECESSARY FOR A COMPLETE AND OPERABLE JOB (TO THE SATISFACTION OF OWNER) WHETHER SHOWN OR IMPLIED SHALL BE HELD AS THE RESPONSIBILITY OF THE CONTRACTOR
2. IMPORTANT NOTE: "CONTRACTOR" REFERENCED IN THESE SPECIFICATIONS SHALL INDICATE WORK BY ELECTRICAL CONTRACTOR OR ANY OF HIS SUBCONTRACTORS UNLESS NOTED OTHERWISE.
3. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE INSTALLATION WITH OTHER TRADES TO VERIFY THE ACTUAL SPACE CONDITIONS THAT ARE TO BE MAINTAINED. NO ADDITIONAL PAYMENT WILL BE APPROVED FOR FAILURE TO COMPLY.
4. ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
5. CONTRACTOR SHALL NOTE SCALE ELECTRICAL DRAWINGS. REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT AND CONFIRM WITH CONSTRUCTION MANAGER ANY SIZES AND LOCATIONS WHEN NEEDED.
6. CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: THE CONTRACT, SPECIFICATIONS, AND CONSTRUCTION DRAWINGS. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO INSTALL ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING ETC. AS SHOWN OR IMPLIED ON THE DRAWINGS AND TO PROVIDE A COMPLETE OPERATIVE SYSTEM TO THE SATISFACTION OF OWNER.
7. CONTRACTOR SHALL PROVIDE ON-SITE SUPERVISION AT ALL TIMES WHILE THE WORK IS BEING PERFORMED AND SHALL DIRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
8. INSTALLATION OF ALL ELECTRICAL EQUIPMENT, DEVICES, CONDUITS, ETC. MUST BE COORDINATED WITH ALL OTHER TRADES. COORDINATE SHUTDOWN TIMES AND WORKING HOURS WITH BUILDING OWNER, INCLUDING OFF HOURS, WEEKEND, AND HOLIDAY WORK AS REQUIRED.
9. ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE OWNER IN WRITING PRIOR TO THE AWARD OF THE CONTRACT AND AN ADDENDUM WILL BE ISSUED TO COVER SAME.
10. GUARANTEE - CONTRACTOR SHALL FURNISH OWNER WITH A WRITTEN GUARANTEE TO PROMPTLY REMEDY ALL DEFECTS OF WORK OR MATERIALS WITHOUT CHARGE FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE AND INSPECTION.
11. MATERIALS - ALL MATERIALS AND EQUIPMENT SHALL BE NEW, IN ORIGINAL CONTAINERS/WRAPPINGS, SHALL BE SPECIFICATION GRADE, AND LABELED OR LISTED BY U.L. OR AN ACCREDITED TESTING ORGANIZATION AS REQUIRED BY LOCAL INSPECTORS.
12. CONTRACTOR SHALL PROVIDE ADEQUATE AND REQUIRED LIABILITY INSURANCE FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK
13. ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.
14. CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.

LICENSES, CERTIFICATIONS OF INSPECTION

1. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL GOVERNING AGENCIES THAT REQUIRE SITE INSPECTION OF THE WORK AND/OR SIMPLY NOTIFICATION. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK.
2. CONTRACTOR AND ALL OF HIS SUBCONTRACTORS THAT PERFORM ANY WORK ON THIS PROJECT SHALL BE CURRENTLY LICENSED BY ALL AGENCIES WHICH GOVERN OVER THE LAND(S) ON WHICH CONSTRUCTION IS TO TAKE PLACE. CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS AS REQUIRED, ALL COSTS SHALL BE BORNE BY CONTRACTOR.
3. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS INCIDENTAL TO WORK UNDER THIS CONTRACT. WHEN THE WORK IS COMPLETED, THE REQUIRED CERTIFICATES OF APPROVAL SHALL BE FURNISHED TO THE BUILDING OWNER. CONTRACTOR MUST BE LICENSED IN THE STATE, COUNTY AND CITY OF THE PROJECT SITE.

CODES AND ORDINANCES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LATEST EDITION OF NEC AND ALL APPLICABLE CODES AND ORDINANCES, INCLUDING SUCH AS PERTAIN TO THE SAFETY AND HEALTH RELATIONS. CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER THE DRAWINGS AND SPECIFICATIONS ONLY IN CASE OF CONFLICT AND SHALL INCLUDE BUT NOT BE LIMITED TO:
- A. UL - UNDERWRITERS LABORATORIES
- B. NEC - NATIONAL ELECTRICAL CODE
- C. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC.
- D. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT
- E. SBC - STANDARD BUILDING CODE
- F. NFPA - NATIONAL FIRE CODES

CHARGING CABINET NOTE

1. PER NEC 625.22 - THE USER INTERFACE (CHARGE POST) IS CONTROLLED BY THE ELECTRICAL EQUIPMENT (CHARGING CABINET) AND THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN TO ENSURE THE SAFETY OF CUSTOMERS AND THOSE AROUND THE EQUIPMENT. BEFORE ANY VOLTAGE OR CURRENT IS APPLIED TO THE CHARGE POST, THE CABINET MUST COMMUNICATE WITH THE TESLA VEHICLE. THERE IS A 'HANDSHAKE' BETWEEN THE CAR AND THE CABINET CONFIRMING THAT THE VEHICLE IS ACTUALLY A TESLA AND THAT THE VEHICLE CAN HANDLE THE SUPERCHARGING. VOLTAGE IS THEN APPLIED TO THE POWER SOCKETS IN THE CHARGE POST AND ONCE THE VOLTAGE READING FROM THE CAR IS VERIFIED AS THE SAME IN THE CHARGING CABINET, THEN CURRENT BEGINS TO FLOW. IF AT ANY POINT IN THIS PROCESS A FAULT IS DETECTED, THE CHARGING WILL STOP IMMEDIATELY, WITHIN A MATTER OF MILLISECONDS, DURING THE NORMAL CHARGING CYCLE. IF ANY FAULT OR IRREGULARITY IS DETECTED, THE CHARGING WILL AGAIN STOP WITHIN MILLISECONDS OF DETECTION. BEYOND THIS LOGIC PROTECTION, THERE IS PHYSICAL PROTECTION FROM OVER-CURRENT OR OVER-VOLTAGE WITHIN EACH OF THE CHARGERS. BEYOND THAT, FAST ACTING FUSES ALSO PROTECT THE VEHICLE OUTPUTS FROM OUTPUTTING TOO HIGH OF A CURRENT.

POST CONSTRUCTION AND PROJECT CLOSEOUT DOCUMENTATION

1. **AS-BUILT REQUIREMENTS:** DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. TO PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS, STORE IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE OWNER'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK DRAWINGS THAT ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CONSTRUCTION MANAGER FOR THE OWNER'S RECORDS. CONTRACTOR SHALL SUBMIT AS-BUILT SET OF PLANS TO THE ENGINEER WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION.

EXISTING CONDITIONS AND DEMOLITION

1. ALL ELECTRICAL DEMOLITION WORK, INCLUDING MATERIAL REMOVAL FROM THE SITE, SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. BEFORE PROCEEDING WITH THE DEMOLITION WORK, THE CONTRACTOR SHALL OBTAIN FROM THE BUILDING OWNER A LIST OF ANY REMOVED ITEMS TO BE SALVAGED. ALL OTHER REMOVED MATERIALS AND EQUIPMENT SHALL BE PROPERLY DISCARDED OFF THE PREMISES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE AT THE COMPLETION OF WORK.
3. EXISTING UTILITIES AND CONDITIONS ARE SHOWN FROM FIELD DATA AND EXISTING DOCUMENTS AND ARE NOT NECESSARILY COMPLETE OR ACCURATE. ALL FIELD CONDITIONS SHALL BE VERIFIED BY CONTRACTOR BEFORE START OF CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, EXPOSE, AND DETERMINE IF CONFLICTS EXIST WITH THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL NOTIFY THE OWNER IN ORDER TO RESOLVE ANY CONFLICTS. EXISTING ELECTRICAL CONDUIT, WIRING, ETC. DAMAGED DURING RENOVATION SHALL BE REPLACED IN LIKE KIND AND CHARACTER, AND AT THE EXISTING UTILITY LINES, DRAIN OR FIELD TILE DAMAGED SHALL BE REPAIRED OR REPLACED, AS NEEDED, IN LIKE KIND AND CHARACTER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING CONDUITS, CONTROL WIRING, ETC., WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
5. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
6. SITE VISIT - CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING HIS WORK. NO EXTRAS WILL BE PERMITTED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS. QUANTITIES OF MATERIALS SHALL BE PER CONTRACTOR'S MEASUREMENTS.

BASIC ELECTRICAL MATERIALS AND METHODS

1. WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL OR CHASE IN WALLS AND FLOORS AS REQUIRED. ALL NEW OPENINGS SHALL BE COORDINATED WITH THE ENGINEER. ALL PENETRATIONS OF THE BUILDING WALLS, CEILING AND FLOORS, THE CONTRACTOR SHALL SEAL WITH QUALITY CAULK, FIRE RATED AND WATERTIGHT, SUBMITTED FOR APPROVAL BY THE OWNER.
2. TRASH REMOVAL: CONTRACTOR SHALL REMOVE ALL TRASH CREATED BY THEMSELVES OR HIS SUBCONTRACTORS DUE TO DEMOLITION OR CONSTRUCTION. THE CONTRACTOR SHALL ALSO REMOVE TRASH CREATED BY OTHER SUBCONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES AND PACKING. PROMPTLY CLEAN-UP ALL SOILING, DEBRIS AND OTHER UNSIGHTLY OR HAZARDOUS CONDITIONS, CAUSED BY WORK OR DELIVERIES UNDER THIS CONTRACT, FROM THE BUILDING GROUNDS, ENTRIES, CORRIDORS, STAIRWAYS, ELEVATORS OR OTHER PUBLIC AREAS. ALL SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL FACILITY.
3. SIGNAGE: CONTRACTOR SHALL MAINTAIN SECURITY AROUND PERIMETER OF CONSTRUCTION SITE DURING ALL HOURS BY INSTALLING A TEMPORARY RIBBON FOR INTERIOR WORK TO IDENTIFY CONSTRUCTION AREAS AS REQUIRED. SIGNAGE SHALL BE POSTED WITH NOTIFICATIONS OF "NO TRESPASSING" AND "CONSTRUCTION AREA".
4. CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT FABRICATE ANY MATERIALS OFF SITE, NOR DO ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CUTTING, SUBSEQUENT PATCHING, AND REQUIRED FLASHING FOR ALL ITEMS NECESSARY FOR ELECTRICAL PART OF THE CONTRACT. PATCH PAINT, AND REPAIR ANY AREA DAMAGED TO THE SATISFACTION OF THE BUILDING OWNER.
6. THE EXACT LOCATIONS OF ALL ELECTRICAL DEVICES, EQUIPMENT AND CONDUIT, AS SHOWN ON THE DRAWING, IS APPROXIMATE. WHEN NOT SHOWN IN DETAIL, THE EXACT LOCATION OR ROUTING SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO THE APPROVAL OF OWNER.
7. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT FOR THE MOUNTING AND SUPPORT OF ALL ITEMS REQUIRING THE SAME AS REQUIRED BY N.E.C.
8. TRENCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION.
9. WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
10. ALL BOLTS SHALL BE STAINLESS STEEL.
11. FOR UNDERGROUND RACEWAYS, PROVIDE ADDITIONAL SLACK IN CONDUCTORS AND CONDUIT EXPANSION JOINTS IN ORDER TO ALLOW FOR EARTH MOVEMENT FROM SETTLEMENT, FROST, ETC. IN ORDER TO PREVENT DAMAGE TO THE CONDUCTORS OR TO THE EQUIPMENT CONNECTED TO THE RACEWAYS PER THE NEC.

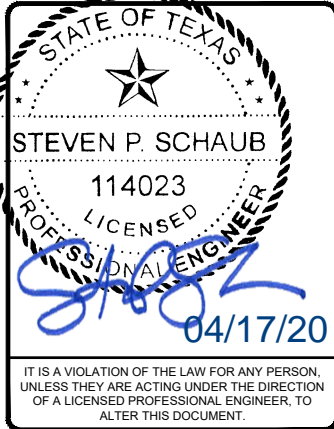
TESLA

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AUSTIN, TX 78758

SHEET TITLE
ELECTRICAL
GENERAL NOTES

SHEET NUMBER

EN-1

ELECTRICAL EQUIPMENT

1. ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.

FIRESTOPPING AND SEALING ELECTRICAL PENETRATIONS

1. CONTRACTOR SHALL FURNISH AND INSTALL FIRESTOPPING FOR SEALING AROUND ELECTRICAL PENETRATIONS THROUGH FIRE OR SMOKE BARRIERS, AND FLOORS.
2. PROVIDE SHOP DRAWINGS OF EACH CONDITION REQUIRING PENETRATION SEALS AND THE PROPOSED UL SYSTEMS MATERIALS, ANCHORAGE, METHODS OF INSTALLATION, AND ACTUAL ADJACENT CONSTRUCTION. SUBMITTAL PACKAGE SHALL ALSO INCLUDE A COPY OF THE UL ILLUSTRATION OF EACH PROPOSED SYSTEM INDICATING MANUFACTURER APPROVED MODIFICATIONS (IF APPLICABLE) AND THE MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS, INSTALLATION INSTRUCTIONS, AND MAINTENANCE INSTRUCTIONS.
3. FIRESTOPPING MATERIALS SHALL BE INTUMESCENT SAFETY BARRIERS DESIGNED TO BLOCK THE SPREAD OF FIRE AND SMOKE THROUGH PENETRATIONS CREATED BY ELECTRICAL INSTALLATIONS IN FIRE RATED WALLS AND FLOORS. MATERIALS SHALL BE FLAME, TOXIC FUME, AND WATER RESISTANT AND SHALL HAVE A MINIMUM 3 HOUR FIRE RATING. FIRE RATING SHALL BE DEFINED BY TESTS CONDUCTED BY ASTM, UL OR OTHER TESTING AND INSPECTION AGENCIES ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
4. PROVIDE MATERIALS BY THE FOLLOWING MANUFACTURERS TO SUIT THE APPLICATION: SPECIFIED TECHNOLOGIES, INC (STI), SOMERVILLE, NJ; TREMCO, INC., BEACHWOOD, OH; OR 3M INC., MINNEAPOLIS, MN

FAULT CURRENT, COORDINATION STUDY, AND ARC FLASH

1. CONTRACTOR SHALL CONDUCT A FAULT CURRENT CALCULATION AND COORDINATION STUDY TO ENSURE THE CORRECT AIC RATING OF NEW ELECTRICAL PANELBOARDS AND THE SETTINGS OF ANY ADJUSTABLE BREAKERS. THE RESULTS OF THESE STUDIES SHALL BE SUBMITTED WITH THE PANELBOARD SHOP DRAWINGS. ANY PANELS SUBMITTED WITHOUT THIS DOCUMENTATION WILL BE REJECTED WITHOUT BEING REVIEWED AT THE CONTRACTOR'S EXPENSE.
2. CONTRACTOR SHALL PROVIDE AN ARC-FLASH STUDY AND LABEL ALL EQUIPMENT AS REQUIRED PER THE N.E.C.

GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

1. ALL RACEWAYS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE N.E.C. AND ANY LOCAL CODES.
2. ALL CONDUITS SHALL CONTAIN A CODE SIZE GROUNDING CONDUCTOR.
3. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED WITH GREEN-COLORED INSULATION.
4. GROUNDING ELECTRODE CONDUCTORS SHALL BE STRANDED CABLE.
5. MATERIALS AND CONNECTION COMPONENTS FOR GROUNDING AND BONDING SHALL BE MANUFACTURED BY ERICO, THOMAS & BETTS, OR BURNDY.

ELECTRICAL IDENTIFICATION

1. PROVIDE NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT AND ON EQUIPMENT AS DIRECTED BY OWNER.
2. PROVIDE ALL FEEDERS AND BRANCH CIRCUIT WIRING WITH COLOR CODED VINYL TAPE WRAPPED A MINIMUM OF 1.5 TIMES AROUND CIRCUMFERENCE OF JACKET/SHIELDING TO DESIGNATE PHASE.
3. COLOR CODING OF CONDUCTORS SHALL BE PER OWNERS REQUIREMENTS.
4. CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC"

CONDUCTORS AND CABLES

1. WIRING - ALL CONDUCTORS SHALL BE EQUAL TO OR BETTER THAN MINIMUM #12 AWG FOR POWER, #14 AWG FOR CONTROL WITH 98% CONDUCTIVITY STRANDED COPPER, 600V, COLOR CODED, UNLESS NOTED ALUMINUM (AL). REFER TO "ALUMINUM CONDUCTOR REQUIREMENTS" THIS SHEET. PROVIDE 75°C RATED CONDUCTORS FOR AMPACITIES ABOVE 100A AND 60°C RATED CONDUCTORS FOR AMPACITIES OF 100 AMPS OR LESS. PROVIDE SOLID OR STRANDED FOR #10 AWG AND SMALLER, STRANDED FOR #8 AWG AND LARGER. UNLESS NOTED OTHERWISE ON DRAWINGS.
2. WIRE SIZE OF BRANCH CIRCUITS SHALL BE ADJUSTED TO COMPENSATE FOR VOLTAGE DROP BASED UPON ACTUAL CONDUIT ROUTING. CONTRACTOR SHALL MAINTAIN VOLTAGE DROP AS RECOMMENDED BY N.E.C. (NOT TO EXCEED 3%).
3. PROVIDE A SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT, FEEDER, ETC. NEUTRALS ARE NOT PERMITTED TO BE SHARED.
4. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.
5. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.
6. CABLES - MC CABLE IS NOT PERMITTED.
7. PROVIDE WIRE AND CABLE MANUFACTURED BY ONE OF THE FOLLOWING: AMERICAN INSULATED WIRE CORPORATION; NEXANS; CERROWIRE; SOUTHWIRE; OR ENCORE WIRE.
8. PROVIDE CONNECTORS MANUFACTURED BY ONE OF THE FOLLOWING: AMP INCORPORATED; GENERAL SIGNAL, O-Z/GEDNEY UNIT; SQUARE D COMPANY, ANDERSON; ILSCO; OR BURNDY.

ALUMINUM CONDUCTOR REQUIREMENTS

1. ALUMINUM CONDUCTOR GRADE SHALL BE MINIMUM AA-8000 OR THE NEWEST ALUMINUM CONDUCTOR SPECIFICATION BEING USED BY THE INDUSTRY.
2. THE CONTRACTOR SHALL ABIDE BY ALL ARTICLES RELATED TO ALUMINUM CONDUCTORS IN THE LATEST ISSUE OF THE NEC.
3. ALUMINUM CONDUCTORS SHALL ONLY BE TERMINATED USING ALUMINUM RATED CONNECTIONS. CONTRACTOR SHALL VERIFY TERMINATIONS ON EACH DEVICE OR EQUIPMENT BEFORE START OF WORK FOR RATED ALUMINUM CONNECTORS.
4. THE CONTRACTOR SHALL ABIDE BY ALL ALUMINUM WIRING INSTALLATION STANDARDS AS REQUIRED BY THE NEIS (NATIONAL ELECTRICAL INSTALLATION STANDARDS) PUBLISHED BY THE NECA (NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION). THE CONTRACTOR SHALL ABIDE BY ALL STANDARDS IN THE NECA / AA - 2006, WHICH DEFINES MINIMUM STANDARDS OF QUALITY AND WORKMANSHIP. A SUMMARY OF SOME OF THE REQUIREMENTS FOLLOW:
 - A. TERMINATE WITH COMPRESSION CONNECTORS, NO RING CUTS OF THE INSULATION, CRIMP ONLY WITH A CRIMP TOOL AND THE CORRECT DIE AS REQUIRED BY THE MANUFACTURER.
 - B. ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION.
 - C. TERMINATING WITH A SET SCREW CONNECTOR, THE SCREW SHALL BE TIGHTENED USING ONLY A TORQUE WRENCH.
 - D. NECA / AA RECOMMENDS BELLVILLE WASHERS WHEN CONNECTING ALUMINUM CONDUCTORS TO COPPER BUS BARS. ABIDE BY ALL NECA / AA RECOMMENDATIONS.
 - E. DO NOT USE PIN CONNECTORS (WIRE ADAPTERS) UNLESS ABSOLUTELY NECESSARY. USE ALL / ANY OTHER OPTIONS, AND IF REQUIRED, PROVE TO ENGINEER BEFORE INSTALLING. IF USED, FOLLOW U.L. GUIDE FOR WIRE CONNECTORS (ZMOW), AND PROVIDE THE SPECIAL TOOLS REQUIRED BY THE MANUFACTURER. DIE-LESS CRIMPERS WILL NOT BE ACCEPTED.

RACEWAY AND BOXES

1. RACEWAYS: UNLESS NOTED OTHERWISE, ALL EXPOSED CONDUIT SHALL BE R.G.S., SCHEDULE 80 AND COVERED 6" BELOW FINISHED GRADE TO BE PVC, SCHEDULE 40. PROVIDE WEATHERPROOF FLEX CONNECTIONS WHERE REQUIRED. CONTRACTOR SHALL PROVIDE JUNCTION AND/OR PULL BOXES WHERE SHOWN ON THE DRAWINGS, OR AS REQUIRED, WHETHER SHOWN ON THE DRAWINGS OR NOT, AND SIZED PER N.E.C. PROVIDE NON-METALLIC ENCLOSURE WITH OPEN BOTTOM AND GASKETED COVER MANUFACTURED BY QUAZITE OR EQUIVALENT WITH DRIVE-OVER COVER ABLE TO WITHSTAND OCCASIONAL NON-DELIBERATE LIGHT VEHICULAR TRAFFIC. LABEL COVER TO SUIT INSTALLATION (I.E. "POWER" "COMMUNICATIONS", "LIGHTING", ETC.) AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

A. ABOVE GRADE: R.G.S.
B. BELOW GRADE: SCHEDULE 40 PVC (UNLESS NOTED OTHERWISE)
2. ALL WIRING SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT SHALL BE A MINIMUM OF 3/4".
3. CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL BE A MINIMUM OF 3 FT. RADIUS. RGS CONDUITS WHEN SPECIFIED, SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'GOLD GALV'.
4. OUTLET BOXES SHALL BE CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
5. PROVIDE METAL CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ALFLEX CORPORATION; ANAMET INCORPORATED, ANACONDA METAL HOSE; ANIXTER BROTHERS INCORPORATED; CAROL CABLE COMPANY INCORPORATED; ELECTRI-FLEX COMPANY; GRINNELL COMPANY, ALLIED TUBE AND CONDUIT DIVISION; MONOGRAM COMPANY, AFC; REPUBLIC CONDUIT; OR WHEATLAND TUBE COMPANY.
6. PROVIDE NONMETALLIC CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ANAMET INCORPORATED, ANACONDA METAL HOSE; CANTEX INDUSTRIES, HARSCO CORPORATION; CONDUX INTERNATIONAL, ELECTRICAL PRODUCTS; HUBBELL INCORPORATED, RACO, INCORPORATED; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.
7. PROVIDE CONDUIT BODIES AND FITTINGS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; EMERSON ELECTRIC COMPANY, APPLETON ELECTRIC COMPANY; HUBBELL INCORPORATED, KILLARK ELECTRIC MANUFACTURING COMPANY; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.
8. PROVIDE METAL WIREWAYS MANUFACTURED BY ONE OF THE FOLLOWING: HOFFMAN ENGINEERING COMPANY; KEYSTONE/REES, INCORPORATED; OR SQUARE D COMPANY.
9. PROVIDE BOXES, ENCLOSURES, AND CABINETS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; HOFFMAN ENGINEERING COMPANY, FEDERAL-HOFFMAN INCORPORATED; HUBBELL INCORPORATED, RACO INCORPORATED; THOMAS & BETTS, CARLON ELECTRICAL PRODUCTS; O-Z/GEDNEY, UNIT OF GENERAL SIGNAL; ROBROY INDUSTRIES INCORPORATED, ELECTRICAL DIVISION; OR SCOTT FETZER COMPANY, ADALET-PLM.

SAFETY SWITCHES

1. ALL DISCONNECT SWITCHES SHALL BE HEAVY-DUTY CONSTRUCTION WITH LOCKABLE HANDLES SIZED AS NOTED ON THE DRAWINGS AND/OR RISER DIAGRAM. PROVIDE NEMA ENCLOSURE AS REQUIRED BY EXPOSURE TYPE. ALL FUSIBLE SWITCHES SHALL BE PROVIDED WITH DUAL ELEMENT FUSES SIZED PER THE EQUIPMENT MANUFACTURER'S RECOMMENDATION.

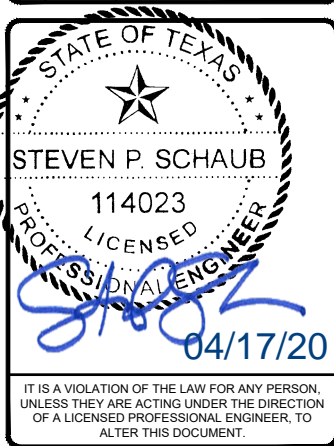
FUSES

1. FUSES SHALL BE DUAL ELEMENT, TIME DELAY CURRENT LIMITING. CONTRACTOR SHALL COORDINATE FUSE SIZES WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS AND PER THE N.E.C.
2. PROVIDE FUSES MANUFACTURED FROM ONE OF THE FOLLOWING: COOPER BUSSMAN, INCORPORATED; EAGLE ELECTRIC MANUFACTURING COMPANY INCORPORATED, COOPER INDUSTRIES INCORPORATED; FERRAZ SHAWMUT INCORPORATED.



GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

		GPD Group, Professional Corporation
		Texas Registration No. 16477
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11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
ELECTRICAL
GENERAL NOTES

SHEET NUMBER

EN-2

OVERALL UTILITY PLAN

DC CHARGING POST LENGTHS (FEET)			
CABINET	POST	LF	***EST***
1	1A	141	163
	1B	132	154
2	2A	121	143
	2B	108	130
3	3A	95	117
	3B	84	106
4	4A	70	92
	4B	64	86
5	5A	62	84
	5B	71	93
6	6A	83	105
	6B	92	114
7	7A	103	125
	7B	113	135
8	8A	124	146
	8B	134	156
TOTAL LENGTH OF DC WIRE=			3898
TOTAL LENGTH OF GND Cu & COMM CABLE WIRE=			1949

SEE SHEET E-3 FOR FEEDER SCHEDULE
TOTAL LENGTH OF DC WIRE =
SUM OF EST LENGTH x
2 WIRES PER CHARGE POST
TOTAL LENGTH OF GND Cu
& COMM CABLE WIRES =
SUM OF EST LENGTHS

AC CHARGING CABINET LENGTHS (FEET)			
SWITCHGEAR	CABINET	LF	**EST**
CIRCUIT 1	1	347	363
CIRCUIT 2	2	351	367
CIRCUIT 3	3	355	371
CIRCUIT 4	4	359	375
CIRCUIT 5	5	359	375
CIRCUIT 6	6	357	373
CIRCUIT 7	7	355	371
CIRCUIT 8	8	353	369
TOTAL LENGTH OF AC WIRE=			11856
TOTAL LENGTH OF GND Cu WIRE=			2964

SEE SHEET E-3 FOR FEEDER SCHEDULE
TOTAL LENGTH OF AC WIRE =
SUM OF EST LENGTH x
4 WIRES PER CABINET
TOTAL LENGTH OF GND Cu =
SUM OF EST LENGTHS

UTILITY SERVICE LATERAL LENGTHS (FEET)		
UTILITY TRANSFORMER TO SE DISCONNECT	LF	*EST*
	26	48
TOTAL LENGTH OF WIRE PER CONDUIT=		192
NUMBER OF WIRE FILLED CONDUIT=		5
TOTAL LENGTH OF WIRE=		960

* AC UTILITY SERVICE CONDUCTORS:
22 FEET IS ADDED TO THE HORIZONTAL RUN
LENGTH TO ACCOUNT FOR BURIED DEPTH.
** AC CONDUCTORS:
16 FEET IS ADDED TO THE HORIZONTAL RUN
LENGTH TO ACCOUNT FOR VERTICAL RUN.
*** DC CONDUCTORS:
22 FEET IS ADDED TO THE HORIZONTAL RUN
LENGTH TO ACCOUNT FOR VERTICAL RUN.

GENERAL SHEET NOTES

- CONDUCTOR LENGTHS ARE ESTIMATES ONLY. LENGTHS ARE BASED ON DIAGRAMMATICAL MEASUREMENTS AND APPROXIMATED BURIED DEPTHS. THE EXACT ROUTING PATH AND CONDUCTOR RUN LENGTHS SHALL BE DETERMINED BY CONTRACTOR IN FIELD BASED ON PHYSICAL MEASUREMENTS. CONTRACTOR SHALL ORDER CONDUCTORS BASED ON FIELD MEASUREMENTS (MUST BE APPROVED BY TESLA INSTALLATION MANAGER).
- "# " DENOTES FEEDER REFERENCE. REFER TO SHEET E-3 FOR FEEDER/CIRCUIT SCHEDULE.
- CONTRACTOR SHALL REFER TO CIVIL SHEETS FOR EXISTING LANDSCAPING TO REMAIN AND PROPOSED LANDSCAPING.
- CONTRACTOR SHALL HAND DIG AROUND ALL EXISTING UTILITIES.
- CONDUIT ELBOWS SHALL BE SIZED PER MANUFACTURER ALLOWABLE FILL. SEE FEEDER SCHEDULE FOR CONDUIT & CONDUCTOR SPECIFICATIONS.
- ALL CONDUITS ACCESSIBLE TO THE PUBLIC OR WHICH CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
- CONTRACTOR SHALL INSTALL PULL BOXES INSIDE PARKING GARAGE AS REQUIRED.
- CONTRACTOR SHALL MAINTAIN MINIMUM HEAD ROOM IN PARKING GARAGE AS REQUIRED BY GARAGE OWNER FOR ALL NEW CONSTRUCTION.
- CONTRACTOR SHALL USE GROUND PENETRATING RADAR TO LOCATE ALL STEEL TENSION WIRES AND REBAR IN CONCRETE BEFORE DRILLING.
- CONTRACTOR SHALL PROVIDE WATER TIGHT & FIRE TIGHT FITTINGS IN ALL PENETRATIONS.
- CONTRACTOR SHALL COORDINATE ALL BUILDING OUTAGES WITH BUILDING OWNER.
- CORE DRILLED HOLES SHALL BE SPACED 6" APART MINIMUM, EDGE TO EDGE. CONTRACTOR SHALL VERIFY REINFORCEMENT LOCATION IN EXISTING CONCRETE PRIOR TO DRILLING AND MAINTAIN 6" CLEARANCE FROM EDGE OF HOLE TO EXISTING REINFORCEMENT. PROVIDE WATER & FIRE SEALANT AFTER CONDUITS HAVE BEEN INSTALLED. INFORM ENGINEER IMMEDIATELY OF ANY INTERFERENCES OR CABLES FOUND THAT WOULD PREVENT CONDUITS FROM BEING LAID OUT AS SPECIFIED.



3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000

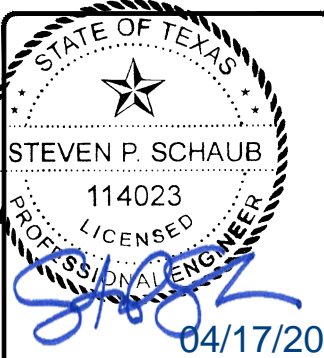


520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

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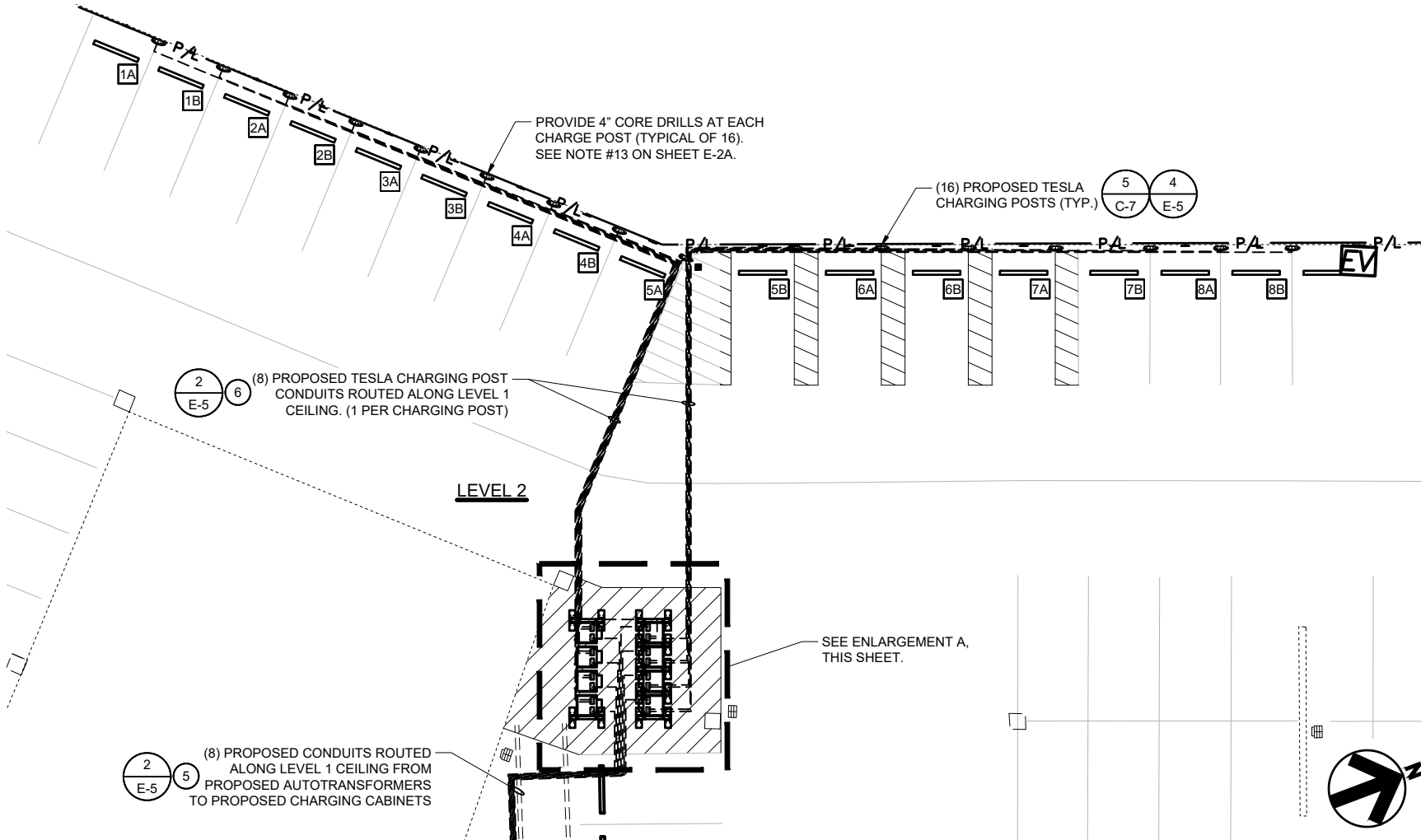
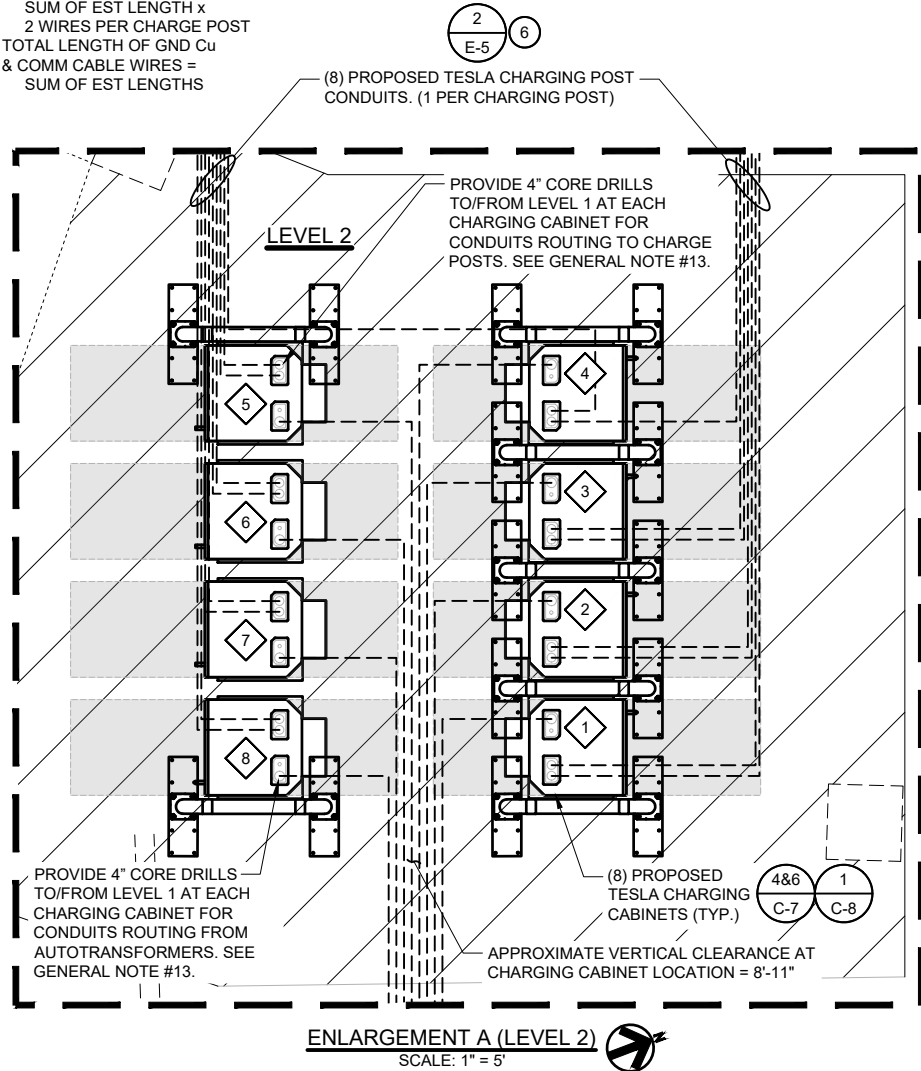
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OF A LICENSED PROFESSIONAL ENGINEER, TO
ALTER THIS DOCUMENT.

11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
ELECTRICAL
EQUIPMENT PLAN

SHEET NUMBER

E-2A



ELECTRICAL EQUIPMENT PLAN

0' 10' 20'

SCALE: 1"=20'

- ELECTRICAL KEYNOTES
1.

CONTRACTOR SHALL PROVIDE 1-1/4" RGS CONDUIT AND PULLSTRING WITH BUSHINGS ON BOTH ENDS FROM PROPOSED CT COMPARTMENT TO PROPOSED UTILITY METER
2.

CONTRACTOR SHALL COORDINATE EXACT LOCATION OF H-FRAME MOUNTED METER WITH UTILITY.

- GENERAL SHEET NOTES
1.

CONDUCTOR LENGTHS ARE ESTIMATES ONLY. LENGTHS ARE BASED ON DIAGRAMMATICAL MEASUREMENTS AND APPROXIMATED BURIED DEPTHS. THE EXACT ROUTING PATH AND CONDUCTOR RUN LENGTHS SHALL BE DETERMINED BY CONTRACTOR IN FIELD BASED ON PHYSICAL MEASUREMENTS. CONTRACTOR SHALL ORDER CONDUCTORS BASED ON FIELD MEASUREMENTS (MUST BE APPROVED BY TESLA INSTALLATION MANAGER).
2.

"

#

" DENOTES FEEDER REFERENCE. REFER TO SHEET E-3 FOR FEEDER/CIRCUIT SCHEDULE.
3.

CONTRACTOR SHALL REFER TO CIVIL SHEETS FOR EXISTING LANDSCAPING TO REMAIN AND PROPOSED LANDSCAPING.
4.

CONTRACTOR SHALL HAND DIG AROUND ALL EXISTING UTILITIES.
5.

CONDUIT ELBOWS SHALL BE SIZED PER MANUFACTURER ALLOWABLE FILL. SEE FEEDER SCHEDULE FOR CONDUIT & CONDUCTOR SPECIFICATIONS.
6.

ALL CONDUITS ACCESSIBLE TO THE PUBLIC OR WHICH CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
7.

CONTRACTOR SHALL INSTALL PULL BOXES INSIDE PARKING GARAGE AS REQUIRED.
8.

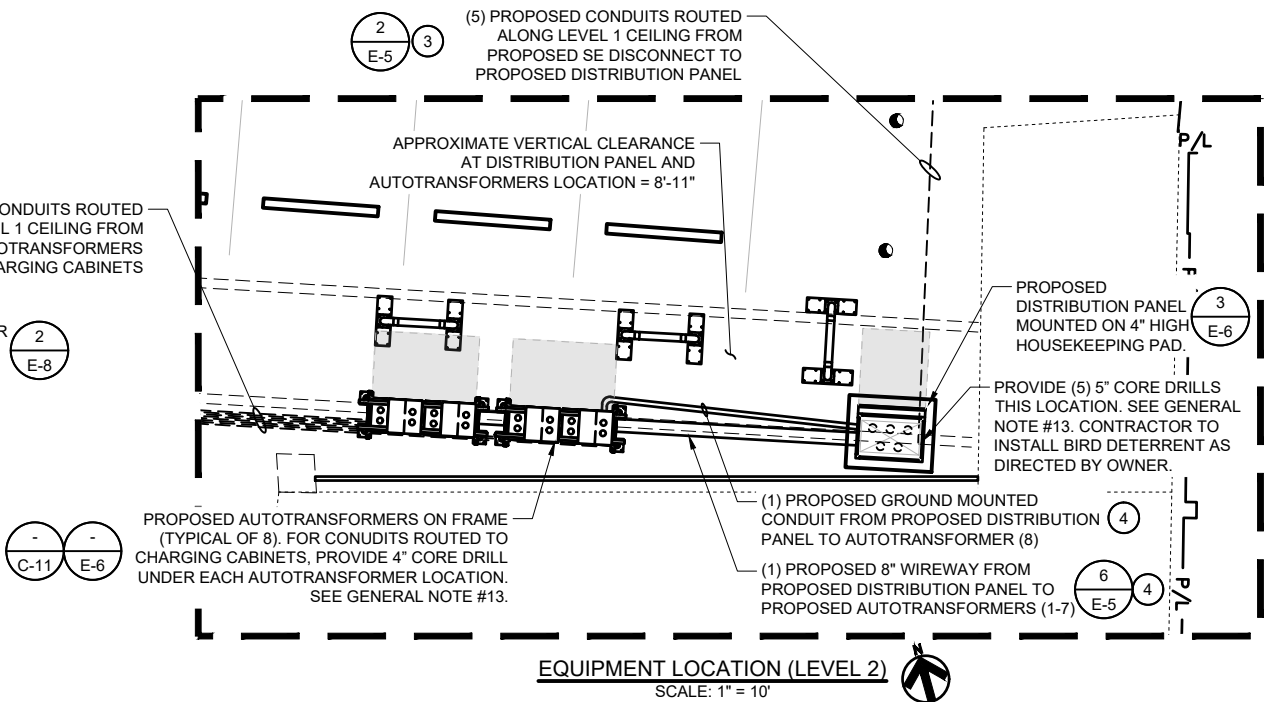
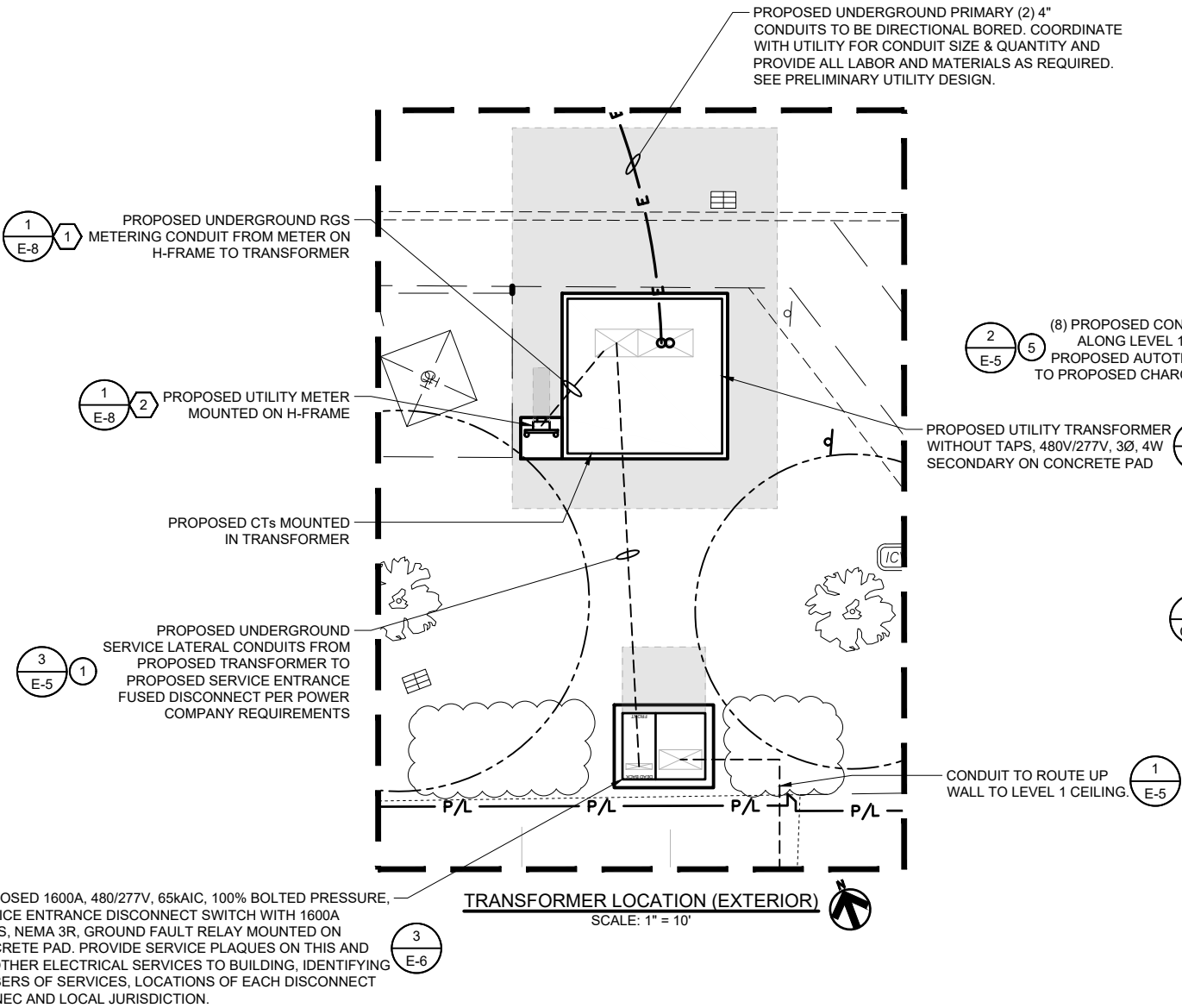
CONTRACTOR SHALL MAINTAIN MINIMUM HEAD ROOM IN PARKING GARAGE AS
- REQUIRED BY GARAGE OWNER FOR ALL NEW CONSTRUCTION.
9.

CONTRACTOR SHALL USE GROUND PENETRATING RADAR TO LOCATE ALL STEEL TENSION WIRES AND REBAR IN CONCRETE BEFORE DRILLING.
10.

CONTRACTOR SHALL PROVIDE WATER TIGHT & FIRE TIGHT FITTINGS IN ALL PENETRATIONS.
11.

CONTRACTOR SHALL COORDINATE ALL BUILDING OUTAGES WITH BUILDING OWNER.
12.

CORE DRILLED HOLES SHALL BE SPACED 6" APART MINIMUM, EDGE TO EDGE. CONTRACTOR SHALL VERIFY REINFORCEMENT LOCATION IN EXISTING CONCRETE PRIOR TO DRILLING AND MAINTAIN 6" CLEARANCE FROM EDGE OF HOLE TO EXISTING REINFORCEMENT. PROVIDE WATER & FIRE SEALANT AFTER CONDUITS HAVE BEEN INSTALLED. INFORM ENGINEER IMMEDIATELY OF ANY INTERFERENCES OR CABLES FOUND THAT WOULD PREVENT CONDUITS FROM BEING LAID OUT AS SPECIFIED.



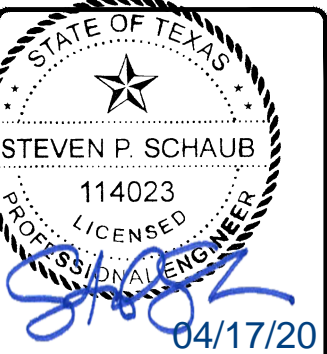
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11410 CENTURY
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SHEET TITLE
ELECTRICAL
EQUIPMENT PLAN

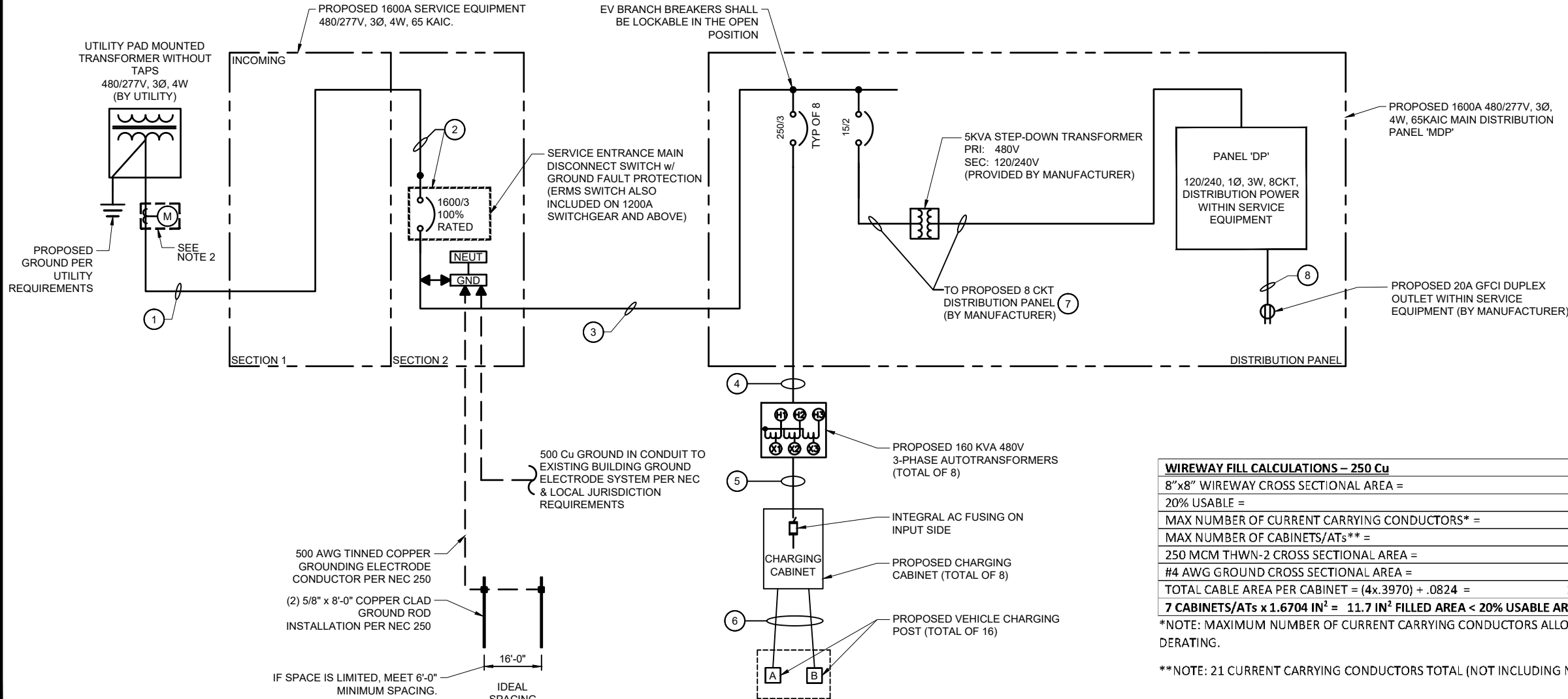
SHEET NUMBER

E-2B

GENERAL SHEET NOTES	
1. NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.	8. ALL ALUMINUM (Al) CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION. ALL OTHER CONDUCTORS ARE COPPER UNLESS NOTED OTHERWISE.
2. PROPOSED UTILITY CTs SHALL BE LOCATED IN UTILITY APPROVED CT COMPARTMENTS MOUNTED IN TRANSFORMER. PROPOSED METER SHALL BE MOUNTED ON H-FRAME.	9. ALL CONDUITS ACCESSIBLE TO THE GENERAL PUBLIC OR WHICH CONDUITS CAN BE DAMAGED SHALL BE RIGID GALVANIZED STEEL.
3. SEE SHEET E-4 FOR PANEL SCHEDULES.	10. THE CHARGING CABINETS AND THE CHARGING POSTS USED ON THIS PROJECT COMPLY WITH THE FOLLOWING STANDARDS: <ul style="list-style-type: none"> • IEC 61851-23 : 2014 / EN 61851 -23: 2014 • UL 2202: 2009 (R2012) • CAN CSA C22.2 NO. 107.1-01 (R2011)
4. ALL CONDUIT FURNISHED AND INSTALLED BY CONTRACTOR. ALL WIRING FURNISHED BY TESLA AND INSTALLED BY CONTRACTOR.	11. THE AFOREMENTIONED STANDARDS IDENTIFY THE REQUIREMENTS MET BY THE EQUIPMENT, INCLUDING BUT NOT LIMITED TO : <ul style="list-style-type: none"> • PROTECTION AGAINST ELECTRIC SHOCK • OVERLOAD AND SHORT CIRCUIT PROTECTION • FAULT PROTECTION • DEGREES OF PROTECTION AGAINST ACCESS TO HAZARDOUS LIVE PARTS • THE INTERNAL COMPONENTS OF THE SYSTEM ARE PROPRIETARY. ANY QUESTIONS CONCERNING ACTUAL INTERNAL PROTECTIVE DEVICES MUST BE COORDINATED DIRECTLY WITH TESLA.
5. ALL BUSHINGS AND INTERNAL WIRING OF PROPOSED SERVICE EQUIPMENT PROVIDED BY MANUFACTURER. ANY MODIFICATIONS SHALL REQUIRE ENGINEERING APPROVAL PRIOR TO ANY CHANGES BEING MADE.	
6. VERIFY AVAILABLE FAULT CURRENT AT THE SECONDARY OF THE UTILITY TRANSFORMER WITH THE POWER COMPANY. CONDUCT A FAULT CURRENT ANALYSIS TO DETERMINE THE INTERRUPTING CAPACITY (AIC RATING) OF THE ELECTRICAL EQUIPMENT.	
7. CONTRACTOR SHALL PERFORM ARC FLASH CALCULATIONS AS REQUIRED IN THE FOLLOWING: NFPA 70; NFPA 70E; OSHA 29; AND IEEE STANDARDS 1584. CONTRACTOR SHALL OBTAIN ALL NECESSARY INFORMATION FROM POWER COMPANY TO CALCULATE FLASH PROTECTION BOUNDARIES, INCIDENT ENERGY LEVELS, AND SHALL DETERMINE MINIMUM PPE REQUIREMENTS FOR COMPLETING THE WARNING LABELS. PROVIDE WARNING LABELS CONTAINING ALL THE LATEST INFORMATION AS REQUIRED BY LOCAL JURISDICTION, STATE AND FEDERAL CODES AND LAWS	

FEEDER/CIRCUIT SCHEDULE			
NO	FROM	TO	CONFIGURATION
①	UTILITY TRANSFORMER/ METERING	PROPOSED SERVICE EQUIPMENT; INCOMING	(3) 600 MCM AI (XHHW-2, 90°C) (1) 600 MCM AI NEUT (XHHW-2, 90°C) IN EACH (5) 4" PVC CONDUITS
②	PROPOSED SERVICE EQUIPMENT; INCOMING	PROPOSED SERVICE EQUIPMENT; 1600A TRIP MAIN BREAKER	FACTORY INSTALLED 1600A BUSS (BY MANUFACTURER)
③	PROPOSED SERVICE EQUIPMENT; 1600A TRIP MAIN BREAKER	PROPOSED DISTRIBUTION PANEL	(3) 600 MCM AI (XHHW-2, 90°C) (1) 600 MCM AI NEUT (XHHW-2, 90°C) (1) 500 MCM Cu GND (XHHW-2, 90°C) (1) IN EACH (5) 4" RGS CONDUITS
④	PROPOSED DISTRIBUTION PANEL	PROPOSED TESLA AUTOTRANSFORMERS 1-8	(3) 250 MCM Cu (XHHW-2, THWN-2, OR RW90) (1) 250 MCM Cu NEUT (XHHW-2, THWN-2, OR RW90) (1) #4 AWG Cu GND IN 3" RGS CONDUIT & 8" WIREWAY (SEE SHEET E-2B)
⑤	PROPOSED TESLA AUTOTRANSFORMERS 1-8	PROPOSED TESLA CHARGING CABINETS 1-8	(3) 250 MCM Cu (XHHW-2, THWN-2, OR RW90) (1) 250 MCM Cu NEUT (XHHW-2, THWN-2, OR RW90) (1) #4 AWG Cu GND IN 3" RGS CONDUIT.
⑥	PROPOSED TESLA CHARGING CABINETS 1-8	PROPOSED TESLA CHARGING POSTS 1-16	(2) 250 MCM AI (XHHW-2, THWN-2, OR RW90) (1) #6 AWG Cu GND (1) 600V COMM CABLE IN 3" RGS CONDUIT OR 8" WIREWAY. SEE PLAN.
⑦	SERVICE GEAR POWER SUPPLY THRU 5 KVA TRANSFORMER (BY MANUFACTURER)	DISTRIBUTION PANEL 'DP'	FACTORY INSTALLED CABLING (BY MANUFACTURER)
⑧	DISTRIBUTION PANEL 'DP'	PROPOSED 20A GFCI DUPLEX OUTLET	FACTORY INSTALLED CABLING (BY MANUFACTURER)

****NOTE:**
CONTRACTOR SHALL INSTALL THE FOLLOWING
WHERE APPLICABLE:
 -PVC BELOW GRADE
 -RGS 8'-0" OR LESS ABOVE GRADE OR PARKING
 GARAGE FLOOR LEVEL
 -EMT 8'-0" MINIMUM ABOVE PARKING GARAGE
 FLOOR LEVEL AND WHERE NOT SUBJECT TO
 DAMAGE. CONTRACTOR SHALL VERIFY WITH
 ELECTRICAL INSPECTOR IF EMT IS APPROVED
 AT THIS PROJECT PRIOR TO ROUGH-IN.



WIREWAY FILL CALCULATIONS – 250 Cu	
8"x8" WIREWAY CROSS SECTIONAL AREA =	64 IN ²
20% USABLE =	12.4 IN ²
MAX NUMBER OF CURRENT CARRYING CONDUCTORS* =	30
MAX NUMBER OF CABINETS/ATs** =	7 (4 CONDUCTORS EACH)
250 MCM THWN-2 CROSS SECTIONAL AREA =	0.3970 IN ²
#4 AWG GROUND CROSS SECTIONAL AREA =	0.0824 IN ²
TOTAL CABLE AREA PER CABINET = (4x.3970) + .0824 =	1.6704 IN ²
7 CABINETS/ATs x 1.6704 IN² = 11.7 IN² FILLED AREA < 20% USABLE AREA = 12.4 IN² OK	

*NOTE: MAXIMUM NUMBER OF CURRENT CARRYING CONDUCTORS ALLOWED BY NEC WITHOUT DERATING.

****NOTE: 21 CURRENT CARRYING CONDUCTORS TOTAL (NOT INCLUDING NEUTRALS).**



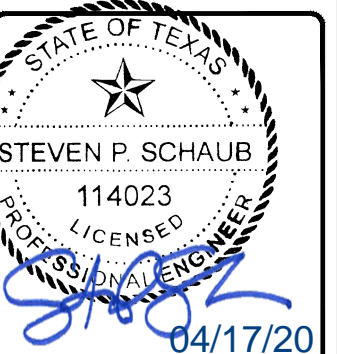
3500 DEER CREEK RD
PALO ALTO, CA 94304
(650) 681-5000



520 South Main Street, Suite 2531
Akron, OH 44311
330.572.2100 Fax: 330.572.2102

GPD PROJECT NUMBER:	2018441.22
DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

GPD Group, Professional Corporation		
Texas Registration No. 16477		
F	04.17.20	SIGNED AND SEALED
F	03.31.20	SIGNED AND SEALED
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A	10.02.18	ISSUED FOR 50% REVIEW
REV	DATE	DESCRIPTION



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OF A LICENSED PROFESSIONAL ENGINEER, TO
ALTER THIS DOCUMENT

11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE

SYSTEM ONE-LINE
DIAGRAM

SHEET NUMBER

E-3

SPECIFICATIONS: SERVICE ENTRANCE RATED, 1600A BUS, 65 KAIC, 100% RATED MCB, NEMA 3R ENCLOSURE

***THE SUM OF THE TOTAL CONNECTED LOADS (NONCONTINUOUS LOAD PLUS THE CONTINUOUS LOAD) TERMINATE IN AN OVERCURRENT DEVICE WHERE BOTH THE OVERCURRENT DEVICE AND ITS ASSEMBLY ARE LISTED FOR OPERATION AT 100 PERCENT OF THEIR RATING.

PANEL BOARD NOTES

1. PANELS ARE LOCATED WITHIN PROPOSED SERVICE EQUIPMENT AND IS PROVIDED AND INSTALLED BY MANUFACTURER.
2. PROVIDE EQUIPMENT WITH SUFFICIENT INTERRUPTING CAPACITY (AIC) REQUIRED FOR A SAFE INSTALLATION. AIC RATING NOTED ON EACH PANELBOARD SCHEDULE IS MINIMUM RATING ACCEPTED WITHOUT ADDITIONAL DOCUMENTATION THAT INDICATES DIFFERENTLY.
3. CIRCUITS SHALL BE REARRANGED AS REQUIRED TO MAINTAIN THE MOST BALANCED LOADS ON EACH PHASE WITHIN EACH PANEL. PROVIDE TYPED PANEL DIRECTORY MOUNTED PER MANUFACTURERS RECOMMENDATIONS WITH SERVICE EQUIPMENT.
4. OCPD FOR CHARGING CABINETS ARE CALCULATED AS FOLLOWS: $192A \text{ AC INPUT TO CABINET} \times 1.25 = 240A \Rightarrow 250A \text{ BRANCH BREAKER REQUIRED}$

SHEET NUMBER
E-4



- 3


- 1

- 6

- 4

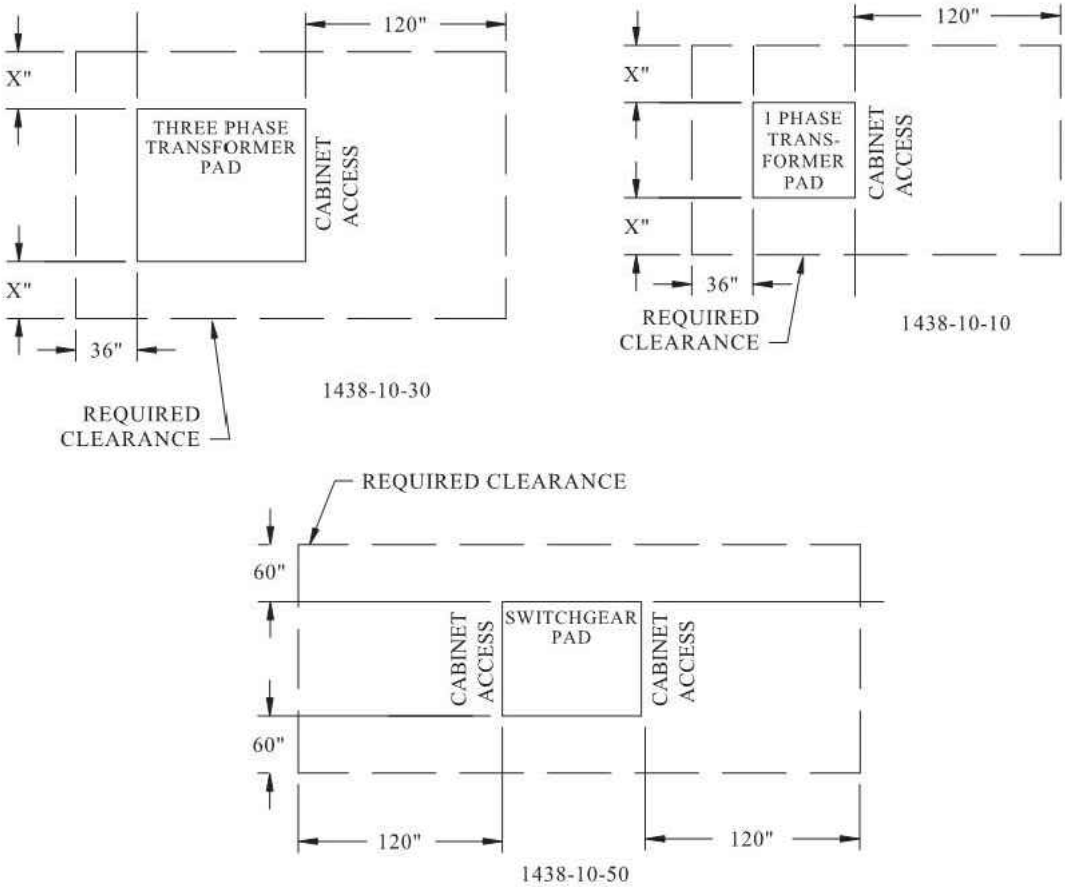


E-5

1438-08	CIVIL	
Sheet 1 of 2	PADS, CLEARANCES AND BARRIERS	
03/06/06	CLEARANCES FOR URD PADS ONLY	
		Rev: 04/25/13

1438 PADS, CLEARANCES AND BARRIERS
1438-08 CLEARANCES FOR URD PADS ONLY

NOTE: ALL CLEARANCE MEASUREMENTS SHOWN BELOW ARE SUBJECT TO THE PARAMETERS FOR CLEARANCES ON PADS, SEE PAGE 1438-08A.




CLEARANCE MEASUREMENTS SHOWN BELOW ARE STANDARD CLEARANCES FOR AE URD.

PER CITY ORDINANCE, THERE SHALL BE NO TREES, SHRUBERY, FENCES ETC., WITHIN THE CLEARANCE AREA.

CONTACT AE DESIGN FOR ANY QUESTIONS OR FURTHER DETAILS REGARDING THE CLEARANCES.

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	CIVIL	1438-08A
	PADS, CLEARANCES AND BARRIERS	Sheet 2 of 2
	PARAMETERS FOR CLEARANCES ON PADS	3/06/06
Rev:04/25/13		

1438-08A PARAMETERS FOR CLEARANCES ON PADS

Minimum clearances required for all pad-mount transformer pads (and other padmounted electrical equipment) applicable only to brick or masonry structures with minimum 2-hour fire rating except as noted.

- Hot-Stick use area-10 ft-open area or clearance to adjacent building or structure.
- Sides without operators or controls-3 ft-open area from any removable ventilated obstruction (fence).
- Sides with operators or controls-5 ft-open area from any removable ventilated obstruction (fence).
- All sides-20 ft-clearance from edge of oil filled equipment pad to fire escape.
- Any side when pad is adjacent to brick or masonry building or structure-5 ft-minimum horizontal clearance from side edges of equipment pad to building or structure.
- Any side when pad is adjacent to brick or masonry building or structure-5 ft-minimum lateral clearance from edge of pad for windows, doors, and ventilating ducts.
- Any side when pad is adjacent to non brick or masonry building or structure-12 ft-horizontal clearance from edge of oil filled equipment pad to non brick or masonry building or fixed structure.
- Any side when pad is adjacent to windows, doors, or ventilating ducts-12 ft-vertical clearance from grade for windows, doors, and ventilating ducts when lateral clearance is less than 5 ft from oil filled equipment pad.
- Any side when pad is adjacent to windows, doors, or ventilating ducts-12 ft-horizontal clearance from edge of oil filled equipment pad to building or fixed structure, if a window, door, or ventilating duct is less than 12 ft from grade or less than 5 ft of lateral separation.
- Vertical clearance above the pad and the total minimum clearance area surrounding the pad - NO COVERING, BUILDING, OR STRUCTURE OF ANY KIND IS ALLOWED DIRECTLY ABOVE THE PAD OR THE MINIMUM EQUIPMENT AREA ASSOCIATED WITH THE PAD.

Contact AE Design for any questions or further details regarding the above.

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PALO ALTO, CA 94304
(650) 681-5000

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DRAWN BY:	HD
CHECKED BY:	RP/EPM
INSTALLATION MANAGER:	ROBERT CORDOVA

REV	DATE	DESCRIPTION
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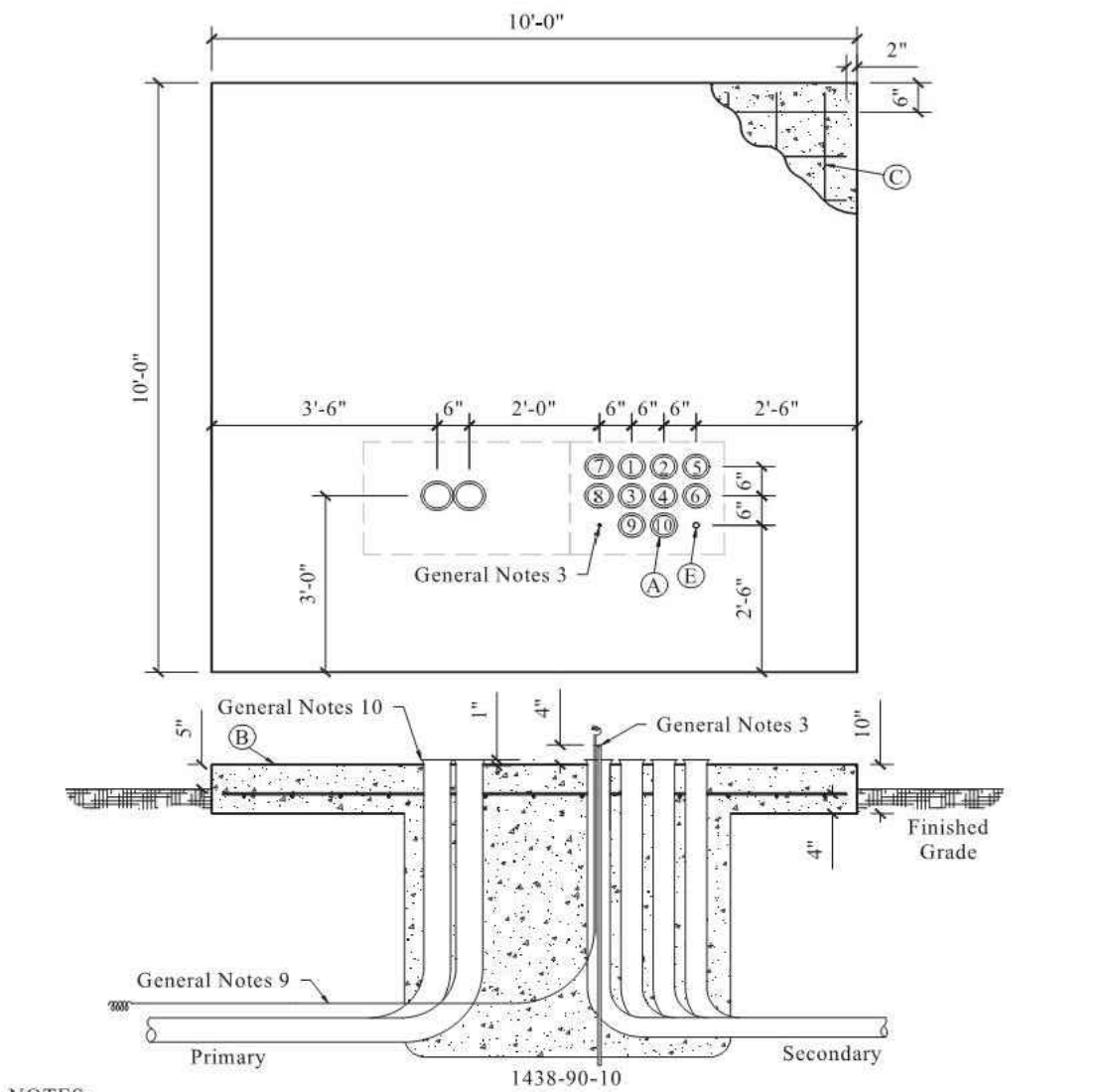
11410 CENTURY
OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
UTILITY DETAILS

SHEET NUMBER
E-7


1438-90	CIVIL	 Rev: 04/25/13
Sheet 1 of 2	PADS, CLEARANCES AND BARRIERS	
03/06/06	PAD CIP 3PH XFMR 10FT X 10FT (75-2500KVA)	

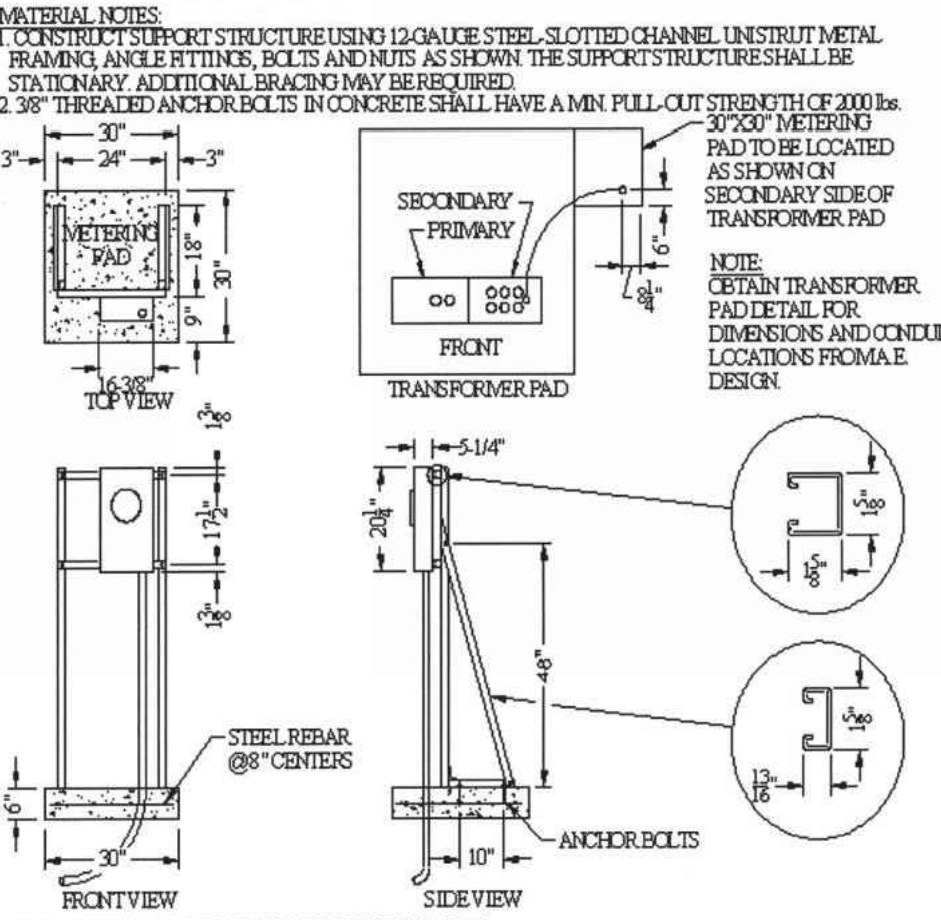
1438-90 PAD CIP 3PH XFMR 10FT X 10FT (75-2500KVA)



- NOTES:
- A. FOR ALL 3 PHASE TRANSFORMER SIZES, A MAXIMUM OF 10 CONDUITS AND 10 SETS OF CABLE PER PHASE, AS SPECIFIED BY AE DISTRIBUTION DESIGN, CAN BE INSTALLED IN THE ARRANGEMENT AND NUMERICAL ORDER AS SHOWN.
 - B. TOP OF SLAB 5" ABOVE FINISHED GRADE.
 - C. 1/2 IN. GRADE 60 REINFORCED STEEL RODS 9" ON CENTER.
 - D. REFER TO GENERAL NOTES ON SECTION 1438-55 FOR DETAILS ON TRANSFORMER CONCRETE PAD CONSTRUCTION.
 - E. WHEN METERING AT THE TRANSFORMER, A 1.25" CONDUIT SHALL BE INSTALLED.

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1-11C	METERING	 REV. 05/25/12
SHEET 1 OF 1	S1V1 SOCKET ENCLOSURE TYPICAL INSTALLATION	
110503		



- NOTES: 13 TERMINAL 3 PHASE (277/480 ONLY) CTRATED
- 1. METERING AT THE TRANSFORMER PAD IS ONLY AVAILABLE FOR SINGLE METER INSTALLATION.
 - 2. CURRENT TRANSFORMERS TO BE INSTALLED AT THE SECONDARY BUSHINGS OF THE TRANSFORMER BY AUSTIN ENERGY.
 - 3. METER ENCLOSURE SHALL BE INSTALLED FACING THE FRONT OF THE TRANSFORMER PAD.
 - 4. INSTALL METER CONTROL CABLE CONDUIT (1-1/4" SCHEDULE 80 PVC OR RIGID METAL) TO ENTER METER ENCLOSURE AT BOTTOM RIGHT.
 - 5. ALTERNATE LOCATION: WITH APPROVAL OF THE ELECTRIC METER OPERATION SECTION, THE METER ENCLOSURE MAY BE INSTALLED ON A PERMANENT WALL WITHIN SIGHT (VISIBLE AND NOT MORE THAN 30 FEET) FROM THE TRANSFORMER PAD.
 - 6. STEEL BARRIER POSTS WILL BE REQUIRED WHEN THE TRANSFORMER PAD IS INSTALLED WITHIN 4 FEET OF A TRAFFIC AREA.
 - 7. HEIGHT TO CENTER OF THE METER SOCKET OPENING FROM A PERMANENT STANDING SURFACE SHALL BE 48"-72".
 - 8. RUN A #6 GROUND WIRE (EITHER SOLID OR STRANDED) FROM THE SECONDARY COMPARTMENT OF THE PAD MOUNT TRANSFORMER TO THE METER SOCKET. BOND THE GROUND WIRE TO THE METER SOCKET, AND INSTALL A FULL STRING.



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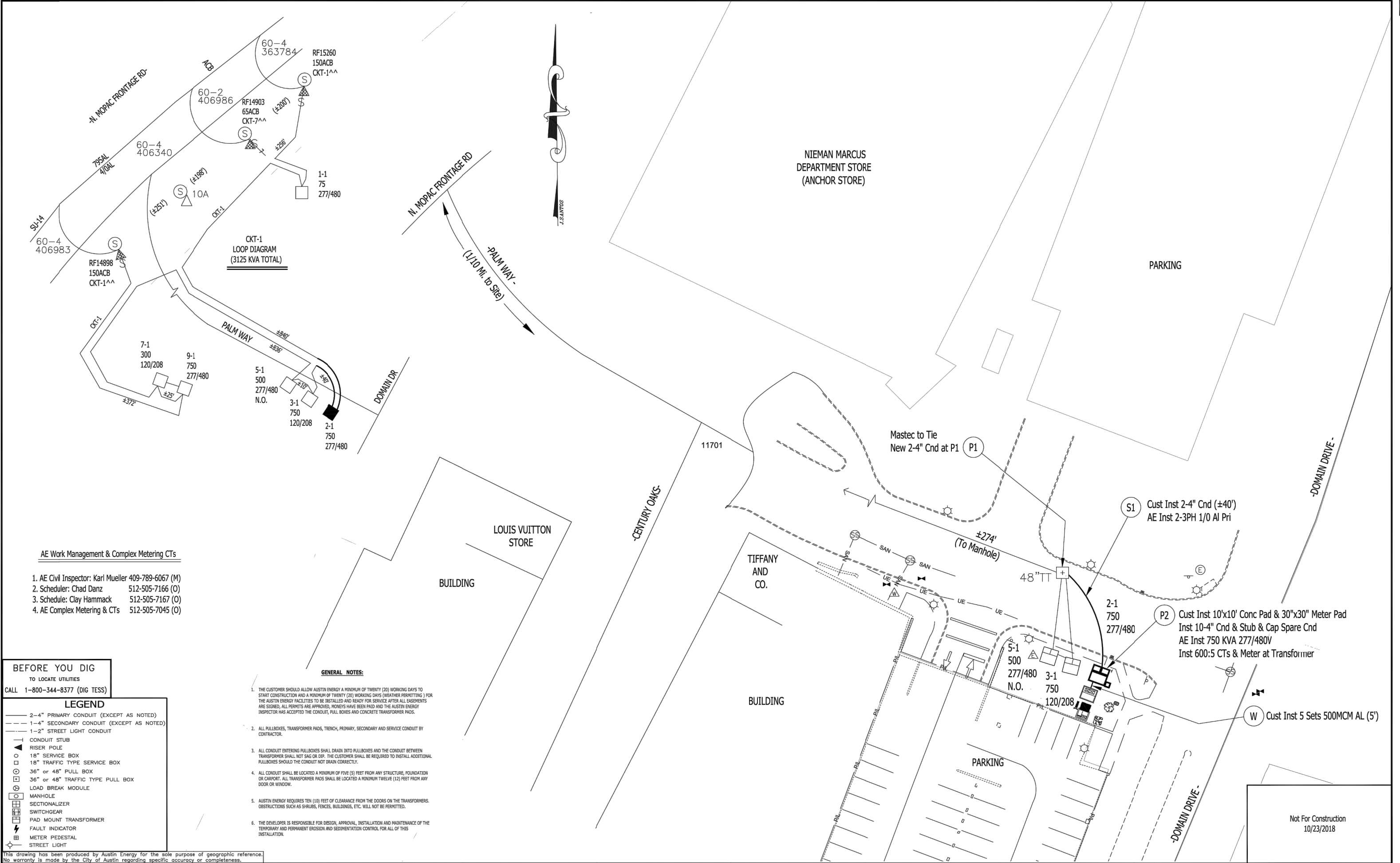
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OAKS TERRACE
(TESLA STATION)
AUSTIN, TX 78758

SHEET TITLE
UTILITY DETAILS

SHEET NUMBER
E-8



AE Work Management & Complex Metering CTs

1. AE Civil Inspector: Karl Mueller 409-789-6067 (M)
2. Scheduler: Chad Danz 512-505-7166 (O)
3. Schedule: Clay Hammack 512-505-7167 (O)
4. AE Complex Metering & CTs 512-505-7045 (O)

BEFORE YOU DIG
TO LOCATE UTILITIES

CALL 1-800-344-8377 (DIG TESS)

LEGEND

- 2-4" PRIMARY CONDUIT (EXCEPT AS NOTED)
- 1-4" SECONDARY CONDUIT (EXCEPT AS NOTED)
- 1-2" STREET LIGHT CONDUIT
- CONDUIT STUB
- RISER POLE
- 18" SERVICE BOX
- 18" TRAFFIC TYPE SERVICE BOX
- 36" or 48" PULL BOX
- 36" or 48" TRAFFIC TYPE PULL BOX
- LOAD BREAK MODULE
- MANHOLE
- SECTIONALIZER
- SWITCHGEAR
- PAD MOUNT TRANSFORMER
- FAULT INDICATOR
- METER PEDESTAL
- STREET LIGHT

GENERAL NOTES:

1. THE CUSTOMER SHOULD ALLOW AUSTIN ENERGY A MINIMUM OF TWENTY (20) WORKING DAYS TO START CONSTRUCTION AND A MINIMUM OF TWENTY (20) WORKING DAYS (WEATHER PERMITTING) FOR THE AUSTIN ENERGY FACILITIES TO BE INSTALLED AND READY FOR SERVICE AFTER ALL EASEMENTS ARE SIGNED, ALL PERMITS ARE APPROVED, MONEYS HAVE BEEN PAID AND THE AUSTIN ENERGY INSPECTOR HAS ACCEPTED THE CONDUIT, PULL BOXES AND CONCRETE TRANSFORMER PADS.
2. ALL PULLBOXES, TRANSFORMER PADS, TRENCH, PRIMARY, SECONDARY AND SERVICE CONDUIT BY CONTRACTOR.
3. ALL CONDUIT ENTERING PULLBOXES SHALL DRAIN INTO PULLBOXES AND THE CONDUIT BETWEEN TRANSFORMER SHALL NOT SAG OR DIP. THE CUSTOMER SHALL BE REQUIRED TO INSTALL ADDITIONAL PULLBOXES SHOULD THE CONDUIT NOT DRAIN CORRECTLY.
4. ALL CONDUIT SHALL BE LOCATED A MINIMUM OF FIVE (5) FEET FROM ANY STRUCTURE, FOUNDATION OR CARPORT. ALL TRANSFORMER PADS SHALL BE LOCATED A MINIMUM TWELVE (12) FEET FROM ANY DOOR OR WINDOW.
5. AUSTIN ENERGY REQUIRES TEN (10) FEET OF CLEARANCE FROM THE DOORS ON THE TRANSFORMERS. OBSTRUCTIONS SUCH AS SHRUBS, FENCES, BUILDINGS, ETC. WILL NOT BE PERMITTED.
6. THE DEVELOPER IS RESPONSIBLE FOR DESIGN, APPROVAL, INSTALLATION AND MAINTENANCE OF THE TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL FOR ALL OF THIS INSTALLATION.

This drawing has been produced by Austin Energy for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

5	----	-----	-----	-----	-----
4	-----	-----	-----	-----	-----
3	-----	-----	-----	-----	-----
2	-----	-----	-----	-----	-----
1	-----	-----	-----	-----	-----
0	10/23/2018	ORIGINAL	SANTOSJ	-----	-----
NO.	DATE	REVISION	DESIGNER	CHECK BY:	CONST. REVIEW:
					DESIGN APPROVED:



ELECTRIC SERVICE DELIVERY
DISTRIBUTION SERVICES

ADDRESS: 11500 1/2 DOMAIN DR		WR. NO. : 188350	
DESIGNER: SANTOSJ		ACCT: 11022505	
CUSTOMER: BRIAN GUTHRIDGE		PH.: 330-572-2249	MAP PAGE: 465-Y
JOB TYPE: d3phpugcjp		PH.: 512-505-7286	DATE STAKED: ----
ROWMAN NO. : 18-184428-RW		EASEMENT NO.:	MAP GRID: MK34
ELECTRIC PERMIT NO.: ----		HWY/COUNTY PERMIT NO.: ----	TREE TRIMMING: ----
		SCALE: N.T.S.	
			Sheet 1 of 1

NOTES:

1. EXOTHERMIC WELD (2) TWO, #6 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR/LUG. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE."
3. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
4. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
5. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND CONDUCTOR DOWN TO GROUND BUS.
6. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.
8. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
9. TESLA CHARGERS HAVE INTERNAL HIGH IMPEDANCE GROUND FAULT PROTECTION (10MΩ).
10. EMC - ELECTROMAGNETIC COMPATIBILITY.
11. ALL GROUNDING HARDWARE SUPPLIED AND INSTALLED BY CONTRACTOR.

GROUNDING NOTES

N.T.S

5

DETAIL NOT USED

N.T.S

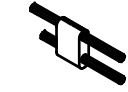
3

CADWELD CONNECTION DETAIL

N.T.S

1

CADWELD CONNECTIONS
(OR APPROVED EQUAL)



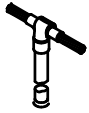
PARALLEL HORIZONTAL
CONDUCTORS
PARALLEL THROUGH
CONNECTION OF
HORIZONTAL TYPE PT



HORIZONTAL STEEL
SURFACE
TO FLAT STEEL SURFACE
OR HORIZONTAL PIPE
TYPE HS



"C" CONNECTOR
HYPRESS TYPE YGHC



THROUGH CABLE TO
GROUND ROD
THROUGH CABLE TO
TOP OF GROUND ROD
TYPE GT



VERTICAL STEEL
SURFACE
CABLE DOWN AT 45° TO
VERTICAL STEEL
SURFACE INCLUDING
PIPE TYPE VS



BOND JUMPER
FIELD FABRICATED
GREEN STRANDED
INSULATED TYPE 2-YA-2



HORIZONTAL SPLICE
SPLICE OF HORIZONTAL
CABLES



VERTICAL PIPE
CABLE DOWN AT 45°
TO RANGE OF
VERTICAL PIPES TYPE
VS



COPPER LUGS
TWO HOLE - LONG
BARREL LENGTH TYPE
YA-2



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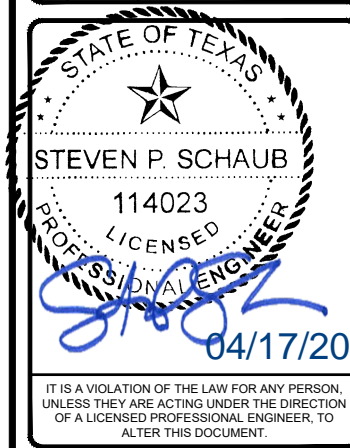


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G-1

TYPICAL EQUIPMENT GROUNDING SCHEMATIC

N.T.S

2